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JOHN CARTER BROWN

THE

Natural HISTORY

OF

CHOCOLATE.

Price 1 s. 6 d.

Juſt publiſh'd, with a Frontiſpiece curiouſly engraved, by Mr. Gerrard Vandergucht, *repreſenting the different Sizes of* Buggs, *from one Day old to their full Growth.*

1. A Treatiſe of *Buggs*; Shewing when and how they were firſt brought into *England*. How they are brought into and infect Houſes. Their Nature, ſeveral Foods, Times and Manner of Spawning and Propagating in this Climate. Their great Increaſe accounted for, by Proof of the Numbers each Pair produce in a Seaſon. Reaſons given why all Attempts hitherto made for their Deſtruction have proved ineffectual. Vulgar Errors concerning them refuted. That from *September* to *March* is the beſt Seaſon for their total Deſtruction, demonſtrated by Reaſon, and proved by Facts. Concluding with Directions for ſuch as have them not already, how to avoid them; and for thoſe that have them, how to deſtroy them. By *JOHN SOUTHALL*, Maker of the Nonpareil Liquor for deſtroying *Buggs* and *Nits*, living at the *Green-Poſts* in the *Green Walk* near *Faulcon-Stairs*, *Southwark*. Price 1 s. Printed for *J. Roberts*, near the *Oxford-Arms* in *Warwick-Lane*..

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2. A Diſſertation concerning *MISLETOE:* A moſt wonderful Specifick Remedy for the Cure of Convulſive Diſtempers. Calculated for the Benefit of the Poor as well as the Rich, and heartily recommended for the Common Good of Mankind. To which is added, A Second PART, containing farther Remarks and Obſervations. By Sir *JOHN COLBATCH*, a Member of the College of Phyſicians.

THE

Natural HISTORY

OF

CHOCOLATE:

BEING

A Distinct and Particular Account of the COCOA-TREE, its Growth and Culture, and the Preparation, Excellent Properties, and Medicinal Vertues of its Fruit.

Wherein the Errors of those who have wrote upon this Subject are discover'd; the Best Way of Making CHOCOLATE is explain'd; and several Uncommon MEDICINES drawn from it, are communicated.

Translated from the last EDITION *of the* French,
By *R. BROOKES*, M. D.

The SECOND EDITION.

LONDON:

Printed for J. ROBERTS, near the *Oxford-Arms* in *Warwick-Lane*. M.DCC.XXX.

RMC

PREFACE.

IF *the Merit of a Natural Hiſtory depends upon the Truth of the Facts which are brought to ſupport it, then an unprejudiced Eye-Witneſs is more proper to write it, than any other Perſon; and I dare even flatter myſelf, that this will not be diſagreeable to the Publick, notwithſtanding its Reſemblance to the particular Treatiſes of* Colmenero (1), Dufour (2), *and ſeveral others who have wrote upon the ſame Subject. Upon examination, ſo great a Difference will appear, that no one can juſtly accuſe me*

(1) De Chocolatâ Indâ.
(2) Du Thé, du Caffe, & du Chocolat.

of having borrow'd any thing from these Writers.

This small Treatise is nothing but the Substance and Result of the Observations that I made in the American Islands, *during the fifteen Years which I was obliged to stay there, upon the account of his Majesty's Service. The great Trade they drive there in* Chocolate, *excited my Curiosity to examine more strictly than ordinary into its Origin, Culture, Properties, and Uses. I was not a little surprized when I every day discover'd, as to the Nature of the Plant, and the Customs of the Country, a great Number of Facts contrary to the Ideas, and Prejudices, for which the Writers on this Subject have given room.*

For this reason, I resolved to examine every thing myself, and to represent nothing but as it really was in Nature, to advance nothing but what I had experienced, and even to doubt of the Experiments themselves, till I had repeated them with the utmost Exactness. Without these Precautions, there can be no great Dependance on the greatest Part of the Facts, which are produced by those who write upon any Historical Matter from Memorandums; which, from the Nature of the Subject, they cannot fully comprehend.

As for my Reasonings upon the Nature, Vertues, and Uses of Chocolate, perhaps they may be suspected by some People, because they relate to an Art which I do not profess; but let that be as it will, the Facts upon which they are founded are certain, and every one is at liberty to make what other Inferences they like best.

As there are several Names of Plants, and Terms of Art used in those Countries, which I have been obliged to make use of, and which it was necessary to explain somewhat at large, that they might be rightly understood; rather than make frequent Digressions, and interrupt the Discourse, I have thought fit to number these Terms, and to explain them at the End of this Treatise: the Reader must therefore look forward for those Remarks under their particular Numbers.

THE

THE TABLE.

The First PART.

CHAP. I. *The Description of the* Cocao-Tree. Pag. 2

Chap. II. *Of the Choice and Disposition of the Place to plant a Nursery.* 10

Chap. III. *Of the Method of Planting a Nursery, and of its Cultivation, till the Fruit comes to Maturity.* 16

Chap. IV. *Of the gathering the* Cocao-Nuts, *and of the Manner of making the Kernels sweat, and also of drying them that they may be transported into* Europe. 24

The

The Second PART.

Of the Properties of Chocolate. 38

Chap. I. *Of the old Prejudices againſt Chocolate.* 39

Chap. II. *Of the real Properties of Chocolate.* 44

Sect. I. *Chocolate is very Temperate.* 45

Sect. II. *Chocolate is very nouriſhing, and of eaſy Digeſtion.* 47

Sect. III. *Chocolate ſpeedily repairs the diſſipated Spirits and decayed Strength.* 51

Sect. IV. *Chocolate is very proper to preſerve Health, and to prolong the Life of old Men.* 56

The Third PART.

Of the Uſes of Chocolate. 60

Chap. I. *Of Chocolate in Confections.* 61

Chap. II. *Of Chocolate properly ſo called.* 62

Sect. I. *Of the Origin of Chocolate, and the different Methods of preparing it.* 63

The

The Method of preparing Chocolate used in the French *Islands of* America. 67

Sect. II. *Of the Uses that may be made of Chocolate, with relation to Medicine.* 70

Chap. III. *Of the Oil or Butter of Chocolate.* 74

Remarks upon some Places of this Treatise. 80

Medicines in whose Composition Oil, or Butter of Chocolate, is made use of. 91

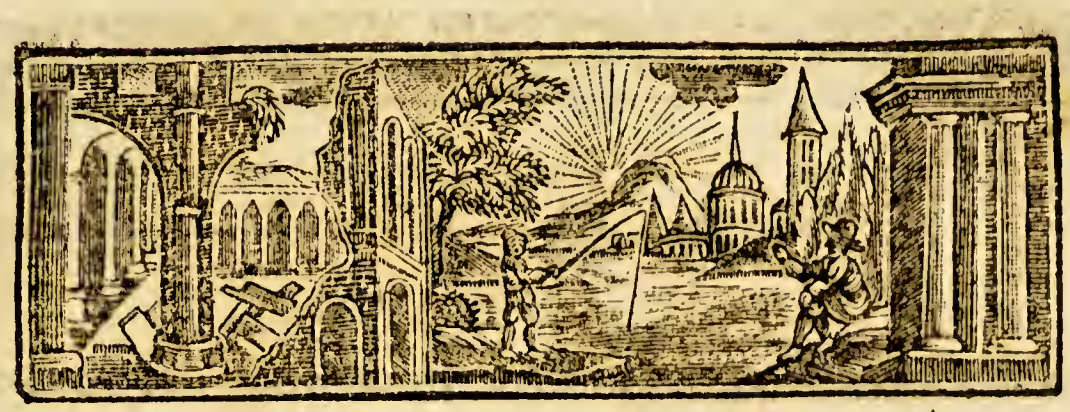
The wonderful Plaister for the curing of all Kinds of Ulcers. ibid.

An excellent Pomatum for the Cure of Tettars, Ringworms, Pimples, and other Deformities of the Skin. 94

The Approbation of Monsieur *Andry*, Counsellor, Lecturer, and Regal Professor, Doctor, Regent of the Faculty of Medicine at *Paris*, and Censor Royal of Books.

I Have read, by order of the Lord Keeper of the Seals, this Natural History of Chocolate, *and I judge that the Impression will be very necessary and useful for the Publick.* Given at *Paris* this 5th of *April*, 1719.

THE



THE Natural HISTORY OF *CHOCOLATE.*

Of the Diviſion of this Treatiſe.

I Shall divide this Treatiſe on Chocolate into three Parts: In the *Firſt*, after I have given a Deſcription of the *Cocao-Tree*, I ſhall explain how it is cultivated, and give an Account how its Fruit is prepared: In the *Second*, I ſhall ſpeak of the Properties of *Chocolate*; and in the *Third*, of its Uſes.

PART I.

CHAP. I.

The Description of the Cocao-Tree.

THE *Cocao-Tree* is moderately tall and thick, and either thrives, or not, according to the Quality of the Soil wherein it grows: Upon the Coaſt of *Caraqua*, for inſtance, it grows conſiderably larger than in the Iſlands belonging to the *French*.

Its *Wood* is porous, and very light; the *Bark* is pretty firm, and of the Colour of *Cinnamon*, more or leſs dark, according to the Age of the Tree. The *Leaves* are about nine Inches long, and four in breadth, where they are broadeſt; for they grow leſs towards the two Extremities, where they terminate in a point: their Colour is a little darkiſh, but more bright above than underneath; they are joined to Stalks three Inches long, and the tenth part of an Inch broad. This Stalk, as it enters the Leaf, makes a ſtrait Rib, a little rai-

ſed

ſed along the Middle, which grows proportionably leſs the nearer it comes to the End. From each ſide of this Rib proceed thirteen or fourteen crooked Threads alternately.

As theſe Leaves only fall off ſucceſſively, and in proportion as others grow again, this Tree never appears naked: It is always flouriſhing, but more eſpecially ſo towards the two *Solſtices*, than in the other Seaſons.

The *Bloſſoms*, which are regular and like a Roſe, but very ſmall, and without ſmell, proceed from the Places from which the old Leaves fall, as it were in Bunches. A large Quantity of theſe fall off, for hardly Ten of a Thouſand come to good, inſomuch that the Earth underneath ſeems cover'd over with them.

Every *Bloſſom* is joined to the Tree by a ſlender Stalk half an Inch or a little more in length; when it is yet in the Bud, it is one Fifth of an Inch broad, and about one fourth or a little more in length: when it was leaſt, in proportion to the Tree and the Fruit, the more ſtrange it appeared to me, and more worthy of Attention (*a*).

(*a*) Piſo *ſays* (Montiſſ. Aromat. cap. 18.) *that the Bloſſom is great and of a bright Yellow*, Flos eſt magnus & flaveſcens inſtar Croci. *A modern Author has tranſcribed this Error of* Piſo; Floribus, *ſays he*, magnis pentapetalis & flavis. Dale *Pharmacologia*, Pag. 441.

When the Buds begin to blow, one may conſider the *Calix*, the *Foliage*, and the Heart of the Bloſſom. The *Calix* is formed of the Cover of the Bud, divided into five Parts, or Leaves, of a very pale fleſh-colour. Theſe are ſucceeded by the five true Leaves of the ſame Colour, which fill up the empty Spaces or Partitions of the *Calix*. Theſe Leaves have two Parts, the undermoſt of which is like an oblong Cup, ſtriped with Purple; on the inſide, it bends towards the Center by the help of a *Stamen*, which ſerves to faſten it; from this proceeds outwardly, the other Part of the Leaf, which ſeems to be ſeparate from it, and is formed like the End of a Pike.

The Heart is compoſed of five Threads and five *Stamina*, with the *Piſtilla* in the middle. The Threads are ſtrait, and of a purple Colour, and placed over-againſt the Intervals of the Leaves. The *Stamina* are white, and bend outwardly with a kind of a Button on the top, which inſinuates itſelf into the middle of each Leaf to ſuſtain itſelf.

When one looks at theſe ſmall Objects through a Microſcope, one is ready to ſay, That the Point of the Threads is like Silver, and that the *Stamina* are Chryſtal; as well as the *Piſtilla*, which Nature ſeems to have placed in the Center, either

to

to be the *Primitiæ* of the young Fruit, or to ſerve to defend it, if it be true that this Embryo unfolds itſelf, and is produced in no other place but the Baſe.

For want of obſerving theſe ſmall Parts, as well as the Bulk of the Bloſſom, *F. Plumier* had no diſtinct Knowledge of them, nor has he exactly deſign'd them, any more than *Monſ. Tournefort*, who has done them after his Draught (*b*).

The *Cocao-Tree* almoſt all the Year bears Fruit of all Ages, which ripen ſucceſſively, but never grow on the end of little Branches, as our Fruits in *Europe* do, but along the Trunk and the chief Boughs, which is not rare in theſe Countries, where ſeveral Trees do the like; ſuch as the (1) *Cocoeiers*, the (2) *Apricots* of St. *Domingo*, the (3) *Calebaſhes*, the (4) *Papaws*, &c.

Such an unuſual Appearance would ſeem ſtrange in the Eyes of *Europeans*, who had never ſeen any thing of that kind; but if one examines the Matter a little, the philoſophical Reaſon of this Diſpoſition is very obvious. One may eaſily apprehend, that if Nature had placed ſuch bulky Fruit at the Ends of the Branches, their great Weight muſt neceſ-

(*b*) Appen. Rei Herbariæ. *pag.* 660. *tab.* 444.
(1)(2)(3)(4) *See the Remarks at the End of this Treatiſe.*

ſarily

ſarily break them, and the Fruit would fall before it came to Maturity.

The Fruit of the *Cocao-Tree* is contained in a Husk or Shell, which from an exceeding ſmall Beginning, attains, in the ſpace of four Months, to the Bigneſs and Shape of a Cucumber; the lower End is ſharp and furrow'd length-ways like a Melon (*c*).

This Shell in the firſt Months is either red or white, or a Mixture of red and yellow: This Variety of Colours makes three ſorts of *Cocao-Trees*, which have nothing elſe to diſtinguiſh them but this, which I do not think ſufficient to make in reality three different kinds of *Cocao-Nuts* (*d*).

The Firſt is of a dark vinous Red, chiefly on the ſides, which becomes more bright and pale as the Fruit ripens.

The Second, which is the White, or rather is at firſt of ſo pale a Green, that it may be miſtaken for White; by little and

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(*c*) Benzo *ſays they grow ripe in a Year, as well as others after him*, Annuo Spatio matureſcit, Benzo memorante. *Carol. Cluzio. l. c.* Annuo juſtam attingens Maturitatem Spatio. *Franc. Hernandes*, apud *Anton. Rech.* In Hiſt. Ind. Occidental. *lb.* 5. *c.* 1.

(*d*) *It ſeems likely that the* Spaniſh *Authors who ſay there are four Kinds of this at* Mexico, *have no better Foundation for the difference than this; and Monſ.* Tournefort *had reaſon to ſay after Father* Plumier, *that he only knew one Kind of this Tree.* *Cacao* Speciem Unicam novi. Append. Rei Herb. *pag.* 660.

lit-

little it assumes a Citron Colour, which still growing deeper and deeper, at length becomes entirely yellow.

The Third, which is Red and Yellow mix'd together, unites the Properties of the other two; for as they grow ripe, the Red becomes pale, and the Yellow grows more deep.

I have observed that the white Shells are thicker and shorter than the other, especially on the side towards the Tree, and that these sorts of Trees commonly bear most.

If one cleaves one of these Shells lengthways, it will appear almost half an Inch thick, and its Capacity full of Chocolate Kernels; the Intervals of which, before they are ripe, are fill'd with a hard white Substance, which at length turns into a Mucilage of a very grateful Acidity: For this reason, it is common for People to take some of the Kernels with their Covers, and hold them in their Mouths, which is mighty refreshing, and proper to quench Thirst. But they take heed of biting them, because the Films of the Kernels are extreamly bitter.

When one nicely examines the inward Structure of these Shells, and anatomizes, as it were, all their Parts; one shall find that the Fibres of the Stalk of the Fruit passing through the Shell, are divided into

five Branches; that each of theſe Branches is ſubdivided into ſeveral Filaments, every one of which terminates at the larger End of theſe Kernels, and all together reſemble a Bunch of Grapes, containing from twenty to thirty-five ſingle ones, or more, ranged and placed in an admirable Order.

I cannot help obſerving here, what Inconſiſtency there is in the Accounts concerning the Number of Kernels in each Shell. (*e*) *Dampier*, for inſtance, ſays there is commonly near a Hundred; other Moderns (*f*) 60, 70 or 80, ranged like the Seeds of a Pomgranate. (*g*) *Thomas Gage*, 30 or 40; *Colmenero* (*h*) 10 or 12; and *Oexmelin* (*i*) 10 or 12, to 14.

I can affirm, after a thouſand Tryals, that I never found more nor leſs than twenty-five. Perhaps if one was to ſeek out the largeſt Shells in the moſt fruitful Soil, and growing on the moſt flouriſhing Trees, one might find forty Kernels; but as it is not likely one ſhould ever meet with more, ſo, on the other hand, it is not

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(*e*) *A new Voyage round the World.* Tom. 1. Ch. 3. p. 69.

(*f*) Pomet's *General Hiſtory of Drugs*, Book vii. Ch. xiv. pag. 205. Chomel's *Abridgment of uſual Plants.* Valentin. Hiſt. Simplicium reform. lib. 2.

(*g*) *New Relation of the* Eaſt Indies. *Tom.* 1. *Part* 2. *Ch.*19.

(*h*) *A curious Diſcourſe upon Chocolate, by* Ant. Colmenero de Cedeſma, *Phyſician and Chirurgeon at* Paris 1643.

(*i*) *The Hiſtory of Adventures.* Tom. 1. Pag. 423.

pro-

probable one ſhould ever find leſs than fifteen, except they are abortive, or the Fruit of a Tree worn out with Age in a barren Soil, or without Culture.

When one takes off the Film that covers one of the Kernels, the Subſtance of it appears; which is tender, ſmooth, and inclining to a violet Colour, and is ſeemingly divided into ſeveral Lobes, tho' in reality they are but two; but very irregular, and difficult to be diſengaged from each other, which we ſhall explain more clearly in ſpeaking of its Vegetation. (*k*) *Oexmelin* and ſeveral others have imagined, that a *Cocao*-Kernel was compoſed of five or ſix Parts ſticking faſt together; Father *Plumier* himſelf fell into this Error, and has led others into it (*l*). If the Kernel be cut in two length-ways, one finds at the Extremity of the great end, a kind of a longiſh (*m*) Grain, one fifth of an Inch long, and one fourth Part as broad, which is the *Germ*, or firſt Rudi-

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(*k*) Ibid.

(*l*) In multas veluti Amygdalas fiſſiles. *Tournefort* in Append. Rei Herb. *Pag.* 660. & *Tab.* 444.

(*m*) *I can't imagine upon what Foundation* Oexmelin *could aſſert, that the* Spaniards *in the making of their Chocolate, uſed nothing but this longiſh Grain, which he calls* Pignon. Au Milieu deſquelles Amandes de Cacao, eſt, *ſays he*, un petit Pignon, qui a la Germe fort tendre, & difficile à conſerver; c'eſt de cette Semence que les Eſpaniols font la celebre Boiſſon de Chocolat. *Oexmelin* Hiſtoire des Avanturers, *Tom.* 1. *pag.* 423. *He confirms more plainly the ſame Fancy*, Pag. 426.

ments of the Plant; but in *European* Kernels this Part is placed at the other end.

One may even ſee in *France* this Irregularity of the Lobes, and alſo the *Germ* in the Kernels that are roaſted and cleaned to make Chocolate.

CHAP. II.

Of the Choice and Diſpoſition of the Place for Planting Cocao-Trees.

THE *Cocao-Tree* grows naturally in ſeveral Countries in *America* under the Torrid Zone, but chiefly at *Mexico*, in the Provinces of *Nicaragua* and *Guatimala*, as alſo along the Banks of the River of the *Amazons* (*n*). Likewiſe upon the Coaſt of *Caraqua*, that is to ſay, from *Comana* to *Cartagena* (*o*) and the *Golden Iſland*. Some alſo have been found in the Woods of *Martinico*.

The *Spaniards* and *Portugueſe* were the firſt to whom the *Indians* communicated the Uſe of *Cocao-Nuts*, which they

(*n*) *Relation of the River of the* Amazons.

(*o*) *I have added this Explication, becauſe* Pomet *makes it come from* Caraqua, *of the Province of* Nicaragua *in* New Spain, *which is diſtant from* Caracas 5 *or* 600 *Leagues*. V. vii. Chap. xiv.

kept

kept a long time to themſelves without acquainting other Nations with it; who in reality know ſo little of it at this day, that ſome *Dutch* Corſairs, ignorant of the Value of ſome Prizes they had taken, out of contempt caſt the Merchandize into the Sea, calling it in deriſion, in very indifferent *Spaniſh*, *Cacura de Carnero* (*p*), The Dung of Beaſts.

In 1649 (*q*) in the *Vert* Iſlands, they had never ſeen but one Tree planted, which was in the Garden of an *Engliſh-Man*, an Inhabitant of the Iſland of *St. Croix* (*r*). In 1655, the *Caribeans* (*s*) ſhewed to M. *du Parepet* a *Cocao-Tree* in the Woods of the Iſland of *Martinico*, whereof he was Governour. This Diſcovery was the Foundation of ſeveral others of the ſame kind, in the Woods of the *Cape Sterre* (*t*) of this Iſland. And it is probable that the Kernels which were taken out of them, were the Original of thoſe *Cocao-Trees* that have been planted there ſince. A *Jew* named *Benjamin* planted the firſt about the Year 1660. but it was not till twenty or twenty-five Years after,

(*p*) Thomas Gage, *Tom.* 1. *Part* 2. *Chap.* 19. *Pag.* 150.

(*q*) Rochefort's *Natural Hiſtory of the* Antilloes. *Book* 1. *Chap.* 6. *Artic.* 16.

(*r*) *Father* Tertre's *Hiſt. of the* Antilloes. *Tom.* 2. *p.* 184.

(*s*) *Theſe are the Savage Natives of the* Antilloes.

(*t*) *That Part is call'd ſo, which lies expoſed to the Winds which come always from the* North-Eaſt *to the* South-Eaſt. *That Part under the Wind, is called* Baſſe-Terre.

that the Inhabitants of *Martinico* apply'd themſelves to the Cultivation of *Cocao-Trees*, and to raiſe Nurſeries of them.

When one would raiſe a Nurſery, it is neceſſary, above all things, to chuſe a proper Place, in reſpect of Situation, and a Soil agreeable to the Nature of it.

The Place ſhould be level, moiſt, and not expoſed to Winds; a freſh, and (if one may be allow'd the Expreſſion) a Virgin Soil, indifferently fat, light, and deep. For this reaſon, Ground newly cleared, whoſe Soil is black and ſandy, which is kept moiſt by a River, and its Borders ſo high as to ſhelter it from the Winds, eſpecially towards the Sea Coaſt, is preferable to any other; and they never fail putting it to this Uſe, when they are ſo happy as to find any of this ſort.

I have ſaid, *Ground newly cleared*, that is to ſay, whoſe Wood is cut down purpoſely for it; for it is neceſſary to obſerve, that they at preſent plant their Nurſeries in the middle of Woods, which have been ſo time out of mind, and this for two weighty Reaſons: The Firſt, becauſe the Wood that is left ſtanding round it, may ſerve as a Shelter; and the Second, becauſe there is leſs Trouble in weeding or grubbing it. The Ground that has never produced any Weeds, will ſend forth but few, for want of Seed.

As

As for Nurſeries planted in high Ground, the Earth is neither moiſt nor deep enough, and commonly the chief Root which grows directly downwards, cannot pierce the hard Earth which it ſoon meets with. Beſides, the Winds are more boiſterous, and cauſe the Bloſſoms to fall off as ſoon as blown, and when a little high, overturn the Tree, whoſe Roots are almoſt all ſuperficial.

This is yet worſe on the Hills, whoſe Deſcent is too ſteep; for beſides the ſame Inconveniencies, the falling down of the Earth draws with it the good Soil, and inſenſibly lays the Roots bare.

One may therefore conclude that all theſe Nurſeries are a long time before they bear, that they are never fruitful, and that they are deſtroy'd in a little time.

It is alſo proper that a Nurſery, as much as may be, ſhould be ſurrounded with ſtanding Wood; but if it is open on any ſide, it ſhould be remedy'd as ſoon as poſſible, by a Border of ſeveral Ranks of Trees called *Bananes* (5).

Beſides this, the Nurſeries ſhould be moderate in reſpect of Magnitude, for the Small have not Air enough, and are, as it were, ſtifled; and the very Large are too liable to Dryneſs, and to the great

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(5) *See the fifth Remark at the End of the Treatiſe.*

Winds,

Winds, which, in *America*, they call *Ouragans* (*u*).

The Place of the Nurſery being choſen, and the Bigneſs determined, they apply themſelves to clear it of the Wood. They begin with plucking up the little Plants, and by cutting the Shrubs, and ſmall kinds of Trees, and felling the Trunks and larger Branches of others; they then make Piles, and ſet them on fire in all Parts, and ſo burn down the largeſt Trees of all, to ſave themſelves the trouble of cutting them.

When all is burnt, and there remains nothing upon the Earth, but the Trunks of the great Trees which they don't trouble themſelves to conſume, and when the Space is well cleaned, they make Alleys by the help of a Line, ſtrait and at equal Diſtances from each other, and thruſt Sticks into the Ground of two or three Foot long, and 5, 6, 7, 8, 9 or 10 Feet diſtant, or at ſuch a diſtance that they deſign to plant the *Cocao-Trees*, which they repreſent. Afterwards they plant *Manioc* in the empty Spaces, taking care not to come too near the Sticks.

One may obſerve, that the Nurſeries planted at the great Diſtances of eight or

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(*u*) *Theſe violent and outrageous Winds blow from all Points of the Compaſs in twenty-four Hours. And this is one material thing to diſtinguiſh them from the regular and common Winds of this Climate.*

ten

ten Feet, are a great deal more troublesome to keep clean in the firſt Years, as we ſhall obſerve hereafter; but then they proſper a great deal better, bear more, and laſt longer.

The Inhabitants, who have a great deal to do, and have but few Slaves, plant the Trees nearer, becauſe by this means they gain room, and they have leſs trouble to keep it clear; when afterwards the Trees come to hurt and annoy each other by their Proximity, and they have had ſome Crops to ſupply their preſent Neceſſities: or if otherwiſe, they are obliged to cut ſome to give Air to the reſt.

On the Coaſt of *Caraqua*, they plant the *Cocao-Trees* at 12 or 15 Feet diſtance, and they make Trenches to water them from time to time in the dry Seaſons. They happily experienced the Succeſs of this Practice at *Martinico* ſome Years ſince.

The *Manioc* (6) is a woody Shrub, whoſe Roots being grated, and baked on the Fire, yield a *Caſſave*, or Meal, which ſerves to make Bread for all the Natives of *America*. They plant it in the new Nurſeries, not only becauſe it is neceſſary to ſupply the *Negroes* with Food, but alſo it hinders the Growth of Weeds, and ſerves to ſhade the young *Cocao-Trees*, whoſe tender Shoots, and even the ſecond

(6) *See the Remark at the ſixth Article.*

Leaves,

Leaves, are not able to reſiſt the ſcorching Beams of the Sun. For this reaſon they wait till the *Manioc* ſhades the Feet of the Sticks before they plant the *Cocao-Trees*, in the manner that we ſhall deſcribe in the following Chapter.

CHAP. III.

Of the Method of Planting a Nurſery, and to cultivate it till the Fruit comes to Maturity.

COCAO-TREES are planted from the Kernel or Seed, for the Nature of the Wood will not admit of Slips: They open a *Cocao-Shell*, and according as they have occaſion, take out the Kernels, and plant them one by one, beginning, for example, at the firſt Stick: They pluck it up, and with a ſort of a Setting-Stick made of Iron, and well ſharpened, they make a Hole, and turning the Iron about, cut off the little Roots that may do hurt. They plant the Kernel three or four Inches deep, and thruſt in the Stick they before had pluck'd up a little on one ſide, to ſerve as a Mark: and ſo they proceed from Stick to Stick, and from Rank to Rank, till they have gone through the whole Nurſery.

It

It muſt be obſerved, 1. *Not to plant in a dry Seaſon.* One may indeed plant in any Month of the Year, or any Moon, new or old, when the Seaſon is cool, and the Place ready; but it is commonly believed, that planting from *September* to *Chriſtmas*, the Trees bear more than in ſome Months.

2. *Not to plant any but the largeſt Kernels, and ſuch as are plump:* For ſince in the fineſt Shells there are ſometimes withered Kernels, it would be very imprudent to make uſe of them.

3. *To plant the great Ends of the Kernels lowermoſt:* This is that which is held by a little Thread to the Center of the Shell, when one takes the Kernel out. If the little End was placed downward, the Foot of the Tree would become crooked, neither would it proſper; and if it was placed ſideways, the Foot would not ſucceed very well.

4. *To put two or three Kernels at every Stick*, that if by any Miſchance the tender Shoots of one or two are broken by Inſects, or otherwiſe, there may be one left to ſupply the Defect. If no bad Accident happen, you have the advantage of chuſing the ſtraiteſt and moſt likely Shoot. But it is not beſt to cut up the ſupernumerary ones till that which is choſen is grown up, and, according to all appearance, out of danger.

The Kernels come up in ten or twelve Days, more or leſs, according as the Seaſon, more or leſs favourable, haſtens or backens their Growth: The longiſh Grain of the Germ beginning to ſwell, ſends forth the little Root downwards, which afterwards becomes the chief Stay of the Tree, and upwards it puſhes out the Shoot, which is an Epitomy of the Trunk and the Branches. Theſe Parts encreaſing, and diſcovering themſelves more and more, the two Lobes of the Kernel a little ſeparated and bent back, appear firſt out of the Earth, and regain their natural Poſition, in proportion as the Shoot riſes, and then ſeparate themſelves intirely, and become two Leaves of a different Shape, of an obſcure Green, thick, unequal, and, as it were, ſhrivel'd up, and make what they call the *Ears* of the Plant. The Shoot appears at the ſame time, and is divided into two tender Leaves of bright Green: To theſe two firſt Leaves, oppoſite to each other, ſucceed two more, and to theſe a third Pair. The Stalk or Trunk riſes in proportion, and thence forward during a Year, or thereabouts.

The whole Cultivation of the *Cocao-Tree* may then be reduced to the Practice of two Things.

Firſt, To over-look them during the firſt fifteen Days; that is to ſay, to plant new Kernels in the room of thoſe that do not

not come up, or whoſe Shoots have been deſtroy'd by Inſects, which very often make dreadful Havock among theſe Plants, even when one would think they are out of danger. Some Inhabitants make Nurſeries a-part, and tranſplant them to the Places where they are wanting: but as they do not all grow, eſpecially when they are a little too big, or the Seaſon not favourable, and becauſe the greateſt part of thoſe that do grow languiſh a long time, it always ſeem'd to me more proper to ſet freſh Kernels; and I am perſuaded, if the Conſequences are duly weighed, it will be practiſed for the future.

Secondly, Not to let any Weeds grow in the Nurſery, but to cleanſe it carefully from one end to the other, and taking care, above all things, not to let any Herb or Weed grow up to Seed; for if it ſhould happen ſo but once, it will be very difficult thenceforwards to root thoſe troubleſome Gueſts out, and to keep the Nurſery clean, becauſe the Cold in this Country never interrupts Vegetation.

This Weeding ſhould be continued till the Trees are become large, and their Branches ſpreading, caſt ſuch a Shade as to hinder the Weeds from coming up; and afterwards, the Leaves falling from the Trees, and covering the Earth, will contribute to ſtifle them intirely. When this troubleſome Buſineſs of Weeding is

ended, it will be ſufficient to overlook them once a Month, and pluck up here and there thoſe few Weeds that remain, and to carry them far into the Woods for fear of Seeds.

When the *Cocao-Trees* are nine Months old, the *Manioc* ſhould then begin to be pluck'd up; and it ſhould be managed ſo, that in three Months time there ſhould be none left. There may be a Row or two replanted in each Alley, and Cucumbers, Citruls, and (x) *Giraumonts* may be ſow'd in the void Spaces, or *Caribean* Coleworts; becauſe theſe Plants having great ſpreading Leaves, are very proper to keep the Earth cool and moiſt, and to ſtifle the noiſome Weeds. When the *Cocao-Trees* come to ſhade the Ground entirely, then it will be neceſſary to pluck up every thing, for nothing then will grow beneath 'em.

The *Cocao-Trees* of one Year old have commonly a Trunk of four Feet high, and begin to ſpread, by ſending out five Branches at the top, all at a time, which forms that which they call the *Crown* of a *Cocao-Tree*. It ſeldom happens that any of theſe five Branches are wanting, and if by any Accident, or contrary to the Order of Nature, it has but three or four, the Tree never comes to good, and it will be

(x) *Theſe are Citruls whoſe Pulp is very yellow.*

better

better to cut it off, and wait for a new Crown, which will not be long before it is form'd.

If at the end of the Year the *Manioc* is not plucked up, they will make the Trees be more ſlow in bearing; and their Trunks running up too high, will be weak, ſlender, and more expoſed to the Winds. If they ſhould be crowned, their Crowns will be too cloſe; and the chief Branches not opening themſelves enough, the Trees will never be ſufficiently diſengaged, and will not ſpread ſo much as they ought to do.

When all the Trunks are crowned, they chuſe the fineſt Shoots, and cut up the ſupernumerary ones without mercy; for if this is not done out of hand, it will be difficult to perſuade one's ſelf afterwards: tho it is not poſſible but that Trees placed ſo near each other, ſhould be hurtful to each other in the end.

The Trees are no ſooner crown'd, but they ſend forth, from time to time, an Inch or two above the Crown, new Shoots, which they call Suckers: If Nature was permitted to play her part, theſe Suckers would ſoon produce a ſecond Crown, that again new Suckers, which will produce a third, *&c.* Thus the *Cocao-Trees* proceed, that are wild and uncultivated, which are found in the Woods of *Cape-Sterre* in *Martinico.* But ſeeing all theſe Crowns do but hinder the Growth of the firſt, and

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almoſt bring it to nothing, tho it is the principal; and that the Tree, if left to itſelf, runs up too high, and becomes too ſlender; they ſhould take care every Month when they go to weed it, or gather the Fruit, to prune it; that is to ſay, to cut or lop off all the Suckers.

I don't know whether they have yet thought it proper to prune, any more than to graft upon *Cocao-Trees*: There is however a ſort of Pruning which, in my Opinion, would be very advantageous to it. Theſe ſort of Trees, for example, have always (ſome more than others) dead Branches upon them, chiefly upon the Extremities of the Boughs; and there is no room to doubt but it would be very proper to lop off theſe uſeleſs Branches, paring them off with the pruning Knife even to the Quick. But as the Advantage that will accrue from it will neither be ſo immediate, nor ſo apparent as the Time and Pains that is employ'd in it; it is very probable that this Care will be neglected, and that it will be eſteem'd as Labour loſt. But however, the *Spaniards* do not think ſo; for, on the contrary, they are very careful to cut off all the dead Sprigs: for which reaſon their Trees are more flouriſhing than ours, and yield much finer Fruit. I believe they have not the ſame care in grafting them, nor do I think any Perſon has hitherto attempted to do it: I am perſuaded

ſuaded nevertheleſs, that the *Cocao-Trees* would be better for it. Is it not by the aſſiſtance of grafting our Fruit-Trees in ſeveral manners, (which were originally wild, and found by chance in the Woods) that they have at length found the Art of making them bear ſuch excellent Fruit?

In proportion as the *Cocao-Trees* grow, the Leaves upon the Trunks fall off by little and little, which ought to fall off on their own accord; for when they are entirely bare, they have not long to flouriſh: The firſt Bloſſoms commonly fall off, and the ripe Fruit is not to be expected in leſs time than three Years, and that if it be in a good Soil. The fourth Year the Crop is moderate, and the fifth it is as great as ever it will be; for then the Trees commonly bear all the Year about, and have Bloſſoms and Fruit of all Ages. Some Months indeed there is almoſt none, and others, they are loaded; and towards the Solſtices, that is, in *June* and *December*, they bear moſt.

As in the Tempeſts called *Ouragans* the Wind blows from all Points of the Compaſs in twenty-four Hours, it will be well if it does not break in at the weakeſt Place of the Nurſery, and do a great deal of Miſchief, which it is neceſſary to remedy with all poſſible expedition. If the Wind has only overturn'd the Trees without breaking the chief Root, then the beſt

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Method that can be taken in good Soil, is to raiſe them up again, and put them in their Places, propping them up with a Fork, and putting in the Earth about it very carefully: By this means they will be re-eſtabliſh'd in leſs than ſix Months, and they will bear again as if no harm had come to them. In bad Soil, it will be better to let them lie, putting the Earth about the Roots, and cultivate at their lower Parts, or Feet, the beſt grown Sucker, and that which is neareſt the Roots, cutting off carefully all the reſt: The Tree in this Condition will not give over bloſſoming and bearing Fruit; and when in two Years time the Sucker is become a new Tree, the old Tree muſt be cut off half a Foot diſtant from the Sucker.

CHAP. IV.

Of the gathering of the Cocao-Nuts, *and the Manner of making them ſweat, and of drying them that they may be brought ſound into* Europe.

THE Obſervations which we made in the firſt Chapter, concerning the Alterations of the Colour of the Nuts, give us information of the time that they become

come ripe. It will be proper to gather them when all the Shell has changed Colour, and when there is but a ſmall Spot below which ſhall remain green. They go from Tree to Tree, and from Row to Row, and with forked Sticks or Poles, they cauſe the ripe Nuts to fall down, taking great care not to touch thoſe that are not ſo, as well as the Bloſſoms: They employ the moſt handy *Negroes* in this Work, and others follow them with Baſkets to gather them, and lay them in Heaps, where they remain four Days without being touch'd.

In the Months that they bear moſt, they gather them for a Fortnight together; in the leſs-fruitful Seaſons, they only gather them from Month to Month. If the Kernels were left in Shells more than four Days, they would ſprit, or begin to grow, and be quite ſpoiled (*y*): It is therefore neceſſary to ſhell them on the fifth Day in the Morning at fartheſt. To do this, they ſtrike on the middle of the Shells with a

(*y*) *For this reaſon, when they would ſend* Cocao-Nuts *to the neighbouring Iſlands from* Martinico, *that they may have wherewithal to plant, they are very careful not to gather them till the Tranſport Veſſel is ready to ſail, and to make uſe of them as ſoon as they arrive. For this reaſon alſo it is not poſſible that the* Spaniards, *when they deſign to preſerve Nuts for planting, ſhould let them be wither'd and perfectly dry, and that afterwards they ſhould take the Kernels of theſe ſame Nuts, and dry them very carefully in the Shade, and after all, raiſe a Nurſery with them, as* Oexmelin *reports,* Hiſtory of Adventurers, *Tom.* 1. *Pag.* 424.

Bit of Wood to cleave them, and then pull them open with their Fingers, and take out the Kernels, which they put in Baskets, caſting the empty Shells upon the Ground, that they may with the Leaves, being putrified, ſerve to fatten the Earth, and ſupply the Place of Dung.

They afterwards carry all the Kernels into a Houſe, and lay them on a heap upon a kind of looſe Floor cover'd with Leaves of *Balize* (7), which are about four Feet long, and twenty Inches broad; then they ſurround it with Planks cover'd with the ſame Leaves, making a kind of Granary, which may contain the whole Pile of Kernels, when ſpread abroad. They cover the whole with the like Leaves, and lay ſome Planks over all: the Kernels thus laid on a heap, and cover'd cloſe on all ſides, do not fail to grow warm, by the Fermentation of their inſenſible Particles; and this is what they call *Sweating*, in thoſe Parts.

They uncover the Kernels Morning and Evening, and ſend the *Negroes* among them; who with their Feet and Hands, turn them topſy turvy, and then cover them up as before, with the ſame Leaves and the ſame Planks. They continue to do this for five Days, at the end of which they have commonly ſweat enough, which

(7) *See the ſeventh Note hereafter.*

is

is diſcover'd by their Colour, which grows a great deal deeper, and very ruddy.

The more the Kernels ſweat, the more they loſe their Weight and Bitterneſs: but if they have not ſweat enough, they are more bitter, and ſmell ſour, and ſometimes ſprit. To ſucceed well therefore, there ſhould be a certain Medium obſerved, which is only to be learnt by uſe.

When the Kernels have ſweat enough, they lay them out to air, and expoſe them to the Sun to dry them, in the manner following.

They prepare before-hand, ſeveral Benches about two Foot high, in an even Court appointed for that purpoſe; they lay upon theſe Benches ſeveral Mats made of pieces of Reeds ſplit in two, together with Bands made of *Mahot* Bark (8). Upon theſe Mats they put the Kernels about two Inches in height, and move and turn them very often with a proper Piece of Wood for the firſt two Days. At Night they wrap up the Kernels in the Mats, which they cover with *Balize* Leaves for fear of Rain, and they do the ſame in the day-time when it is likely to rain. Thoſe who are afraid of having them ſtolen, lock them up.

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(8) *The* Mahot *is a Shrub, whoſe Leaves are round and feel ſoft like thoſe of* Guimauve; *its Bark eaſily comes off, which they divide into long Slangs, which ſerves for Packthread and Cords to the Inhabitants and Natives.*

There are ſome Inhabitants who keep Boxes about five Feet long, and two broad, and three or four Inches deep, on purpoſe to dry the Kernels: There is this Advantage in them, that in the greateſt Rains and ſuddeneſt Showers, they may preſently be piled one on the top of another, ſo that none but the top-moſt will want a Cover; which is ſoon done with the aforeſaid Leaves, and an empty Box turn'd up-ſide down. But that which makes the Uſage of Mats preferable, is, that the Air may paſs through beneath, between the Partition of the Reeds, and ſo dry the Kernels better. Boxes whoſe Bottoms are made like a Sieve with ſtrong Braſs Wire, would be very excellent; but then they muſt be made in *Europe*, which would be a conſiderable Charge.

When the Kernels have ſweat enough, they muſt be expoſed upon the Mats as much as neceſſary: If Rain is foreſeen that is likely to laſt, it will be beſt to let them ſweat half a Day leſs. It is obſervable, that a few hours Rain at firſt, inſtead of doing any harm, makes them more beautiful, and better conditioned. In fair Weather, inſtead of this Rain, it will be proper to expoſe them to the Dew for the firſt Nights. The Rain of a whole Day or two will do no harm, if they are not covered before they have had the Benefit of the Sun, for a Day, or half a Day at leaſt.

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For after a Day's Sun-ſhine, they are to be wrap'd in the Mat, as before directed; but if it be half a Day's Rain only, then they are only covered with *Balize* Leaves in the Night, kept on with little Stones laid at each End: But if the Rain be too long, it makes them ſplit, and then they will not keep long; they therefore make Chocolate of it immediately.

If the Kernels have not ſweat enough, or they wrap them too ſoon in the Mat, they are ſubject to ſprit or germe, which makes them bitter, and good for nothing.

When the Kernels have been once wrapped in a Mat, and begun to dry, care muſt be taken that they do not grow moiſt again; they muſt therefore be well ſtirr'd from time to time, that they may be thorowly dry'd, which you may know by taking a Handful in your Hand, and ſhutting it: if it cracks, then it is time to put them into your Store-houſe, and to expoſe them to ſale.

Thoſe who would gain a Reputation in giving out a good Merchandize, before they pack it up in Veſſels, pick it, and throw aſide the little, wither'd, and thin Kernels, which are not only unſightly, but render the Chocolate ſomething worſe.

Afterwards the Kernels of the *Cocao-Nut* are dried in the Sun, before they are brought to *Europe*, and ſold by the Druggiſts and Grocers, who diſtinguiſh it into great and ſmall, and into that of *Caraqua*, and that

of

of the *French* Iſlands, tho with no good Foundation, for in the Places themſelves they make no mention of this Diſtinction: It therefore ſeems likely, that the Merchants find their account in ſorting it, ſince Kernels proceeding from the ſame Tree, and from the ſame Nut, are not always of the ſame bigneſs. It is indeed true, that if one Parcel of Kernels be compared with another, the one may conſiſt of bigger than the other, which may ariſe from the Age or Vigour of the Trees, or from the Nature of the Soil; but certainly there is no kind of Kernels which may be called Great, as a diſtinct Kind, nor conſequently no other which can properly be ſaid to be Small.

The Kernels that come to us from the Coaſt of *Caraqua*, are more oily, and leſs bitter, than thoſe that come from the *French* Iſlands, and in *France* and *Spain* they prefer them to theſe latter: But in *Germany*, and in the *North* (*Fides ſit penes Autorem*) they have a quite oppoſite Taſte. Several People mix that of *Caraqua* with that of the Iſlands, half in half, and pretend by this Mixture to make the Chocolate better. I believe in the bottom, the difference of Chocolates is not conſiderable, ſince they are only obliged to encreaſe or diminiſh the Proportion of Sugar, according as the Bitterneſs of the Kernels require it. For it muſt be conſidered, as

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we have already ſaid, that there is but one kind of *Cocao-Tree*, which grows as naturally in the Woods of *Martinico*, as in thoſe of the Coaſt of *Caraqua*, that the Climates are almoſt the ſame, and conſequently the Temperature of the Seaſons equal, and therefore there cannot be any intrinſick Difference between theſe Fruits of any great moment.

As to the outward Difference that is obſerved, it can ariſe from nothing but the Richneſs of the Soil, or the contrary; from the different Culture, and from the Care or Negligence of the Labourers and thoſe that prepare it, from the time of its gathering, to the time of its Delivery, and perhaps from all three together. It is to be obſerved at *Martinico*, that the *Cocao-Trees* proſper better in ſome Parts than others, merely from the Difference of the Soil, being more or leſs rich, or more or leſs moiſt.

I have had the Experience of one of my Friends, concerning what relates to the Cultivation and Preparation of this Tree and its Fruit, which demonſtrates that they may add to its Value. This Gentleman, with a great deal of Application and Thought, found out the way to prepare the fineſt Merchandize of the Iſland, which was prefer'd by the Merchants to all the reſt, and bore a greater Price than that of any of his Neighbours.

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The Kernels of *Caraqua* are flattiſh, and for Bulk and Figure not unlike our large Beans. Thoſe of *St. Domingo*, *Jamaica*, and *Cuba*, are generally larger than thoſe of the *Antilloes*. The more bulky the Kernels are, and better they have been nouriſhed, the leſs Waſte there is after they have been roaſted and cleanſed, which ſome Years ago was an Advantage to thoſe of *Caraqua*. But at preſent, by the Regulation from the Month of *April*, 1717, the Kernels of our Colonies pay but Two-pence Duty for Entry, whereas Foreigners pay always Fifteen: Theſe thirteen Pence difference make ſuch ample amends for the ſmall Waſte, that there is a great deal of reaſon to hope, that for the time to come, there will be none but the Curious, and People that do not value the Expence, that will make uſe of the Chocolate of *Caraqua*, by way of preference to that of the *French* Iſlands, and that the Cheapneſs of the latter will double the Conſumption at leaſt.

The beſt *Cocao-Nuts* have very brown firm Shells, and when the Kernel is taken out, it ought to be plump, well nouriſh'd, and ſleek; of the Colour of a Hazle-Nut on the outſide, but more inclining to a Red within; its Taſte a little bitter and aſtringent, not at all ſour or moul-

mouldy (*z*). In a word, without any Smell, and not worm-eaten.

The Fruit of the *Cocao-Tree* is the moſt oily that Nature has produced, and it has this admirable Prerogative, never to grow rank let it be ever ſo old, which all other Fruit do that are analogous to it in Qualities; ſuch as *Nuts*, *Almonds*, *Pine-Apple-Kernels*, *Piſtachoe Nuts*, *Olives*, &c.

There are alſo imported from *America*, *Cocao-Kernel-Cakes* of about a Pound weight each; and as this Preparation is the firſt and principal in the Compoſition of Chocolate, it will be proper to add here the Manner of making it.

The *Indians*, from whom we borrow it, are not very nice in doing it; they roaſt the Kernels in earthen Pots, then free them from their Skins, and afterwards cruſh and grind them between two Stones, and ſo form Cakes of it with their Hands.

The *Spaniards*, more induſtrious than the *Savages*, and at this day other Nations after their Example, chuſe out the beſt Kernels (*a*), and the moſt freſh: Of theſe

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(*z*) *It gets this Taſte either by being laid in a moiſt Place, or by being wet by Sea-Water in the Paſſage.*

(*a*) *As the Kernels are never ſo clean, but there may be Stones, Earth, and bad ones among them; it will be neceſſary, before they are uſed, to ſift them in a Sieve that will let theſe things paſs through, while it retains the Kernels.*

they put about two Pounds in a great Iron Shovel over a clear Fire, ſtirring them continually with a large *Spatula*, ſo long that they may be roaſted enough to have their Skins come off eaſily, which ſhould be done one by one (*b*), laying them apart, and taking great heed that the rotten and mouldy Kernels be thrown away, and all that comes off the good ones; for theſe Skins being left among the Chocolate, will not diſſolve in any Liquor, nor even in the Stomach, and fall to the bottom of Chocolate-Cups, as if the Kernels had not been cleanſed.

If one was curious to weigh the Kernels at the Druggiſts, and then weigh them again after they are roaſted and cleanſed, one ſhould find that there would be about a ſixth Part waſted, more or leſs, according to the Nature and Qualities of the Kernels; that is to ſay, if you bought (for example) 30 Pounds, there would remain entirely cleanſed, near twenty-five.

All the Kernels being thus roaſted and cleanſed at divers times, they put them once more to roaſt in the ſame Iron Shovel, but over a more gentle Fire, and ſtir

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(*b*) *The Artiſts, to make this Work more expeditious, and to gain time, put a thick Mat upon a Table, and ſpread the Kernels upon it as they come hot from the Shovel, and roll a Roller of Iron over them to crack and get off the Skins of the Kernels; afterward they winnow all in a ſplinter Sieve, till the Kernels become entirely cleanſed.*

them

them with the *Spatula* without ceasing till they are roasted all alike, and as much as they ought to be; which one may discover by their Taste, and their dark-brown Colour, without being black. The whole Art consists in avoiding the two Extremes, of not roasting them enough, and roasting them too much; that is to say, till they are burnt. If they are not roasted enough, they retain a disagreeable Harshness of Taste; and if they are roasted so much as to burn them, besides the Bitterness and ill Taste that they contract, they lose their Oilyness entirely, and the best part of their good Qualities.

In *France*, where they are very apt to run into Extremes, they are mighty fond of the burnt Taste, and the black Colour, as if they were proper Marks of good Chocolate, not considering that, Quantity for Quantity, they may as well put so much Charcoal as burnt Chocolate. This Opinion is not only agreeable to Reason and good Sense, but is also confirmed by the unanimous Consent of all that have written on this Subject; and I can affirm, that it is authorized by the universal Consent of all *America*.

When the Kernels are duly roasted, and well cleansed, they put them into a large Mortar to reduce them into a gross Powder, which they afterwards grind upon a

Stone till it is very fine, which requires a more particular Explication.

They make choice of a Stone which naturally reſiſts the Fire, not ſo ſoft as to rub away eaſily, nor ſo hard as to endure poliſhing. They cut it from 16 to 18 Inches broad, and about 27 or 30 long, and 3 in thickneſs, and hollowed in the middle about an Inch and a half deep. This Stone ſhould be fix'd upon a Frame of Wood or Iron, a little higher on one ſide than the other: Under, they place a Pan of Coals to heat the Stone, ſo that the Heat melting the oily Parts of the Kernels, and reducing it to the Conſiſtence of Honey, makes it eaſy for the Iron Roller, which they make uſe of for the ſake of its Strength, to make it ſo fine as to leave neither Lump, nor the leaſt Hardneſs. This Roller is a Cylinder of poliſh'd Iron, two Inches in diameter, and about eighteen long, having at each End a wooden Handle of the ſame Thickneſs, and ſix Inches long, for the Workman to hold by.

When the Paſte is ground as much as is thought neceſſary, they put it hot in Moulds made of Tin, where they leave it, and it becomes hard in a very little time. The Shape of theſe Moulds is arbitrary, and every one may have them made according to his Fancy; but the cylindrick ones, which will hold about 2

or

or 3 Pounds of Chocolate, ſeem to me to be moſt proper; becauſe the thicker they are, the longer they keep good, and may be commodiouſly held when there is occaſion to ſcrape them. Theſe Rolls ought to be wrapped in Paper, and kept in a dry Place: it ſhould alſo be obſerved, that they are very ſuſceptible of good and ill Smells, and that it is good to keep them 5 or 6 Months before they are uſed.

Now the Kernels being ſufficiently rubb'd and ground upon the Stone, as we have juſt directed, if you would compleat the Compoſition in the Maſs, there is nothing more to be done, than to add to this Paſte a Powder ſifted thro a fine Searce, compoſed of Sugar, Cinnamon, and, if it be deſired, of *Vanilla* (*c*), according to the Quantities and Proportions, which we ſhall teach in the Third Part of this Treatiſe; and mix it well upon the Stone, the better to blend it and incorporate it together, and then to faſhion it in Moulds made of Tin in the form of Lozenges of about 4 Ounces each, or if deſired, half a Pound.

(*c*) *What this is, you will find hereafter.*

THE

THE Natural HISTORY OF *CHOCOLATE.*

PART II.

Of the Properties of Chocolate.

WE have hitherto treated of *Chocolate*, as it were, superficially, and as it presents itself to our Senses. We come next to examine its intrinsick Qualities, and to search into its Nature: As far as we can, we will discover what Reason, join'd to long Experience, has taught us concerning the salutary Properties of this Fruit.

CHAP.

CHAP. I.

Of the old Prejudices againſt Chocolate.

TO proceed more methodically, and with greater Clearneſs in our Enquiries concerning *Chocolate*, it ſeems proper to ſet People right about the Prejudices which a falſe Philoſophy has inſtilled into moſt Authors who have wrote upon this Subject; the Impreſſions whereof, are yet very deeply ingraven in the Minds of a great Number of People.

The *Spaniards*, who were firſt acquainted with Chocolate after the Conqueſt of the new World, have laid it down for an undoubted Truth, that *Chocolate* is cold and dry, participating of the Nature of Earth. They have ſupported this Determination neither with Reaſon nor Experience; nor do they know from whence they learnt it; perhaps they have taken it upon the Words, and from the Tradition of the Inhabitants of the Country. Let that be as it will, it is natural from falſe Principles to draw falſe Concluſions, of which the two principal are as follow.

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The firſt is, That Chocolate being by Nature cold, it ought not to be uſed without being mixed with Spices, which are commonly hot, that ſo they might, both together, become temperate and wholeſome. This was the Jargon and Practice of thoſe Times. For the ſame Reaſon the ancient Phyſicians erroneouſly imagining that *Opium* was cold in the fourth Degree, never fail'd to correct this pretended Coldneſs in their narcotick Compoſitions, with Drugs extremely hot, as *Euphorbium*, *Pellitory*, *Pepper*, &c.

Their ſecond Concluſion was, That Chocolate being dry and earthy, and from thence ſuppoſed to be of a ſtyptick and aſtringent Quality; if it was not corrected, muſt neceſſarily breed Obſtructions in the *Viſcera*, and bring on a Cacochimy, and a great Number of other incurable Diſeaſes.

Theſe Prejudices have from the *Spaniards* paſs'd into other Nations. To prove this, it will be unneceſſary to cite a great Number of Authors, for whoever has read one, has read them all, the later having done nothing but copy the former; they have even ſometimes improved their Dreams, and exaggerated this pretended Coldneſs of Chocolate, and at length puſh'd the Matter ſo far, as to make it a kind of cold Poiſon; and if it was taken

to

to Exceſs, it would bring on a Conſumption (1).

" *Mexiaci friget nativa Cocai Tem-*
" *peries, tantoq; excedit Frigore ut inter*
" *noxia ne dubitem glandes cenſere Ve-*
" *nena.*" Thom. Strozzæ *de Mentis potu ſeu de Cocolatis Opificio*, lib. 3.

' *Hinc ſiquis ſolo Cocolatis Fomite*
" *Vitam extrahat, atq; aſſueta neget*
" *Cibi Prandia, ſenſim contrahet exſue-*
" *to marcentem Corpora Tabem.*"

It is not very extraordinary that People who are more ready to *believe* than to *examine*, (ſuch as the World is full of) ſhould give into the unanimous Opinion of ſo many Authors; and it would be ſtrange if they were not carry'd down by the Stream of a Prejudice ſo general. But I cannot ſufficiently admire that *Chocolate* being ſo much decry'd, has not been entirely laid aſide as unfit for Uſe; without doubt there was nothing but the daily Experience of its good Effects, which could ſupport it, and hinder it from giving way to Calumny.

Now to overturn this old Syſtem, it is ſufficient, in my Opinion, to obſerve with how little Skill and Penetration they then treated of the whole Natural Hiſtory; one ought not to be amazed that they have

(1) *Ludov. Ramira*, Relat. ad Hurtad. ad Append. cap.

affirmed *Chocolate* to be cold and dry, in an Age when, for Example, they could ſay *Camphire* was cold and moiſt, which is a kind of Reſin, from whence one Drop of Water cannot be extracted, whoſe ſharp Taſte, and penetrating Smell, joined to the extreme Volatility and Inflammability of its Particles, even in Water itſelf, are ſuch evident Signs of its Heat, that it is difficult to conceive upon what account they perſuade themſelves of the contrary.

The Qualities of Chocolate are not indeed ſo remarkable, nor ſo active, as thoſe of Camphire; but, with the leaſt Attention, one may eaſily diſcern, that the Quantity of Oil that it contains, and the Bitterneſs that is perceivable in Taſting, are not the Marks of Coldneſs, ſince all Bitters are eſteem'd hot, and ſince Oil is a Matter very near a-kin to, and neceſſary for Fire. This is very near the Reaſoning of a celebrated Phyſician at *Rome* (2) againſt the old Opinion: *As for me*, ſays he, *I am of another Judgment; I believe that Chocolate is rather* temperate *than* cold, *and I refer my ſelf to the Deciſion of every ingenious Perſon that will be at the pains to taſte and examine it.*

Theſe Reflections will be farther confirmed in the firſt Section of the following

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(2) *Paulus Zachias*, de Malo Hypocondriaco, Lib. 2. Cap. 15.

Chapter,

Chapter, where we ſhall experimentally demonſtrate that Chocolate is a Subſtance very temperate, yielding ſoft and wholeſome Nouriſhment, incapable of doing any Harm. And if this intrinſick Coldneſs is no more to be feared, it muſt be own'd, that it will be henceforward ridiculous, if not pernicious, to join it with hot acrid Spices, more likely to alter and deſtroy its good and real Qualities, than to correct the bad ones which it has not: I nevertheleſs do not doubt but the Pleaſantneſs of the Smell, and the favourite Taſte of ſeveral agreeable Spices, being pretty much liked in this Mixture, will have their Partizans; who, more delighted with a preſent Gratification, than afraid of the inſenſible Prejudice that theſe Ingredients bring to their Health, will not reſolve to leave them off. Tho theſe will be no longer the Correctors of Chocolate, yet they will ſerve to ſeaſon it, with which they will pleaſe their Taſte, without troubling themſelves with the Conſequences. But thoſe Perſons who will give themſelves the trouble of thinking, and are more tractable and leſs ſenſual, will wiſely abſtain from ſuch Extreams, and their Moderation will not be unattended with Benefit. Health is ſo valuable a Bleſſing, that the Care to gain and preſerve it, ought to ſuperſede any other Conſideration.

As to the pretended Obſtructions which Chocolate is ſaid to occaſion from its aſtrictive Quality, they are ſo far from being afraid of it in *America*, that they have found by Experience a Vertue directly contrary to it; for ſeveral young Women, ſubject to the Whites, have been cured of this Diſtemper, by eating a Dozen *Cocao*-Kernels for Breakfaſt every Morning. It is well enough known that Obſtructions are the Cauſe of this Diſeaſe, which inſtead of being encreas'd by Chocolate, were entirely taken away.

Then as to thoſe ſtrange Diſorders which are ſaid to ariſe from its immoderate Uſe, we ſhall bring in the Sequel ſo many Facts directly contrary to theſe Chimerical Fears, that all Perſons of good Senſe will be diſabuſed, and convinced of the ſalutary and wonderful Properties of this Fruit; which ſhall be the Subject of the following Chapter.

CHAP. II.

Of the real Properties of Chocolate.

WITHOUT talking in the Dialect of the *Peripateticks*, about the Qualities of Heat and Coldneſs, now-a-days ſo much decry'd, it will not be difficult to prove that Chocolate is a Subſtance,

ſtance, 1. Very temperate. 2. Very nouriſhing, and of eaſy Digeſtion. 3. Very proper to repair the exhauſted Spirit sand decayed Strength. 4. *Laſtly*, Very ſuitable to preſerve the Health, and prolong the Lives of old Men. Theſe four Articles ſhall be ſufficiently demonſtrated in the four following Sections.

SECT. I.

Chocolate is very Temperate.

NOTHING is ſo great an Argument that *Wheat*, *Rice*, *Millet*, and *Manioc*, are ſalutary and temperate, as their being uſed by whole Nations together. If any of theſe Subſtances had any predominant evil Quality, it would ſoon appear to the Prejudice of the Health of Numbers; the People who ſubſiſt upon it, would ſoon leave it off as a very dangerous and hurtful Aliment.

One may reaſon much after the ſame manner with reſpect to Chocolate. The Natives of *New-Spain*, and of a great part of the Torrid Zone of *America*, have always uſed it as a Delicacy; and at this day all the *European* Colonies which are eſtabliſh'd in thoſe Countries, make a Conſumption of vaſt Quantities of it: Theſe People uſe it at all Times, and in all Seaſons, as conſtant daily Food, without regard to Age, Sex, Temperament, or Condition,

Condition, without Complaint of having received the leaſt Prejudice from it; they find on the contrary that it quenches Thirſt, is very refreſhing and feeding; that it procures eaſy quiet Sleep, and produces ſeveral other good Effects, to ſay nothing of thoſe we are going to treat of in the following Sections. I could produce ſeveral Inſtances in favour of this excellent Nouriſhment, but I ſhall content myſelf with two only, equally certain and deciſive in the Proof of its Goodneſs. The firſt is an Experiment of Chocolate's being taken for the *only* Nouriſhment, made by a Surgeon's Wife of *Martinico:* She had loſt by a very deplorable Accident her lower Jaw, which reduced her to ſuch a Condition, that ſhe did not know how to ſubſiſt; ſhe was not capable of taking any thing ſolid, and not rich enough to live upon Jellies and nouriſhing Broths. In this Strait ſhe determined to take three Diſhes of Chocolate, prepared after the manner of the Country, one in the Morning, one at Noon, and one at Night. (There, Chocolate is nothing elſe but *Cocao* Kernels diſſolved in hot Water, with Sugar, and ſeaſon'd with a Bit of Cinnamon.) This new way of Life ſucceeded ſo well, that ſhe has lived a long while ſince, more lively and robuſt than before this Accident.

I had the ſecond Relation from a Gentleman of *Martinico*, and one of my

Friends,

Friends, not capable of a Falſity. He aſſured me, that in his Neighbourhood, an Infant of four Months old unfortunately loſt his Nurſe, and its Parents not being able to put it to another, reſolved through Neceſſity to feed it with *Chocolate*; the Succeſs was very happy, for the Infant came on to a Miracle, and was neither leſs healthy nor leſs vigorous than thoſe who are brought up by the beſt Nurſes.

The Inferences that may be drawn from theſe two Hiſtories are evident, and demonſtratively prove that Chocolate has neither any intemperate nor hurtful Quality; I ſhall therefore ſay no more upon them, leaving every one to make his own proper Reflections.

SECT. II.

Chocolate is very nouriſhing and of eaſy Digeſtion.

THIS Propoſition is a neceſſary Conſequence of the foregoing, eſtabliſhed by Facts which I have juſt related; and we have Experiments as convincing of its eaſy Digeſtion, and the Goodneſs of the Chyle that it makes; but it needs no other Proof than the good Condition it puts thoſe in, who ordinarily make uſe of it.

A learned *Engliſhman* has carried his Commendations ſo high concerning this particular Property of Chocolate, that he has not ſcrupled to affirm in a Diſſertation that he has publiſh'd upon this Subject, That one Ounce of Chocolate contains as much Nouriſhment as a Pound of Beef. As much out of the way as this Aſſertion ſeems to be, one may eaſily conceive, that any Aliment is capable of yielding more plentiful Nouriſhment, if compar'd with any other, not only in reſpect to the Quantity, but alſo with relation to the Time that the Stomach takes to digeſt it.

Phyſicians are not agreed about the Cauſes of Digeſtion, but are divided into two Opinions, each of which is ſupported by the Writings of very eminent Authors; convinced of my own Inability to decide the Controverſy, which alſo requires a large Field to expatiate in, I ſhall not undertake to defend either Fermentation or Trituration: But it will be ſufficient to ſay, in two Words, that theſe Opinions are not abſolutely incompatible (1): it perhaps will not be difficult to make a ſort of

(1) *The* Tranſlator *of this Treatiſe, who is a Phyſician, thinks it proper to obſerve, that the Opinions about Digeſtion, are deficiently related by our Author; for they are chiefly four,* Trituration, Fermentation, Heat, *and by a* Menſtruum, *which are ſo far from being incompatible, that three of them neceſſarily concur to promote Digeſtion; to wit,* Heat, *and a* Menſtruum *or* Liquor, *and* Trituration, *or the Motion or rubbing*

of an Alliance or Agreement between them, by uniting whatever is plain and evident in the two Syſtems, and rejecting what is otherwiſe; and from hence form a third, which will be nothing but the Union of the unconteſted Parts of the other two.

Theſe two Cauſes undoubtedly concur in the Alteration that the Aliment undergoes in the Mouth; for the *Saliva* that mixes with it in Maſtication, and dilutes it, cannot be deny'd to be an admirable Ferment (2); and the Tongue which moves it, and the Teeth which grind it, and break it, muſt be own'd to be the firſt Inſtruments of Trituration.

Now ſince Nature is commonly uniform in her Operations, and ſince there is a great deal of reaſon to ſuppoſe that Nature compleats Digeſtion by the ſame means that ſhe has begun it, let us ſuppoſe it is really ſo for a Moment, and apply it to the preſent Subject, and then we ſhall ſee by what Evidence Chocolate ought to be of an eaſy Digeſtion.

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rubbing of the Coats of the Stomach: For it is plain, if the two former are abſent, there can be no Digeſtion, and without doubt the laſt does aſſiſt; but which is the principal, I ſhall not take upon me to determine.

(2) *Our Author ſeems here either to miſtake* Ferment *for* Menſtruum, *or to make them ſynonymous Terms: With this Allowance, his Reaſoning is undoubtedly juſt; but as for a Ferment, in the uſual Senſe of that Word, it may juſtly be queſtioned whether there be any ſuch in a Human Bod,.*

In the firſt place, bitter and alkaline Subſtances, ſuch as theſe Kernels, are ſtomachick and analogous to the *Saliva* and the Ferment which diſſolves the Aliment in the Stomach; how then can it be of hard Digeſtion with theſe Qualities?

In the ſecond place, if one conſiders attentively the Kernels as they are roaſted, broke, and ground extremely fine upon a Stone, afterwards melted and diſſolved in boiling Liquor, which ſerves as a Vehicle for it; it then ſeems very likely that the Stomach will not have much Labour left to do. In ſhort, by it Digeſtion is more than half finiſhed.

Experience confirms theſe Reaſonings very much, for the Digeſtion of Chocolate is ſoon brought about without Trouble, without Difficulty, and without any ſenſible riſing of the Pulſe; the Stomach very far from making uſe of its Strength, acquires new Force. And I can farther ſay, upon my own Knowledge, that I have ſeen ſeveral Perſons who had but weak Digeſtion, if not quite ſpoiled, who have been entirely recovered by the frequent Uſe of Chocolate.

SECT.

SECT. III.

Chocolate ſpeedily repairs the diſſipated Spirits and decay'd Strength.

IF Chocolate did not produce this Effect, but only as it is very nouriſhing, it would but have this Property in common with the moſt juicy Aliments, and ſuch as are moſt proper to furniſh a good Quantity of Blood and Plenty of Spirits: but its Effects are far more ſpeedy; for if a Perſon, for Example, fatigued with long and hard Labour, or with a violent Agitation of Mind, takes a good Diſh of Chocolate, he ſhall perceive almoſt inſtantly, that his Faintneſs ſhall ceaſe, and his Strength ſhall be recovered, when Digeſtion is hardly begun. This Truth is confirmed by Experience, tho' not ſo eaſily explained by Reaſoning, becauſe Chocolate ſenſibly appears to be ſoft, heavy, and very little diſpoſed by any active Quality to put the Spirits in motion; however, being reſolved to neglect nothing that is likely to unfold the Cauſe of an Effect ſo wonderful, I undertook one day the *Chymical Analyſis* of Chocolate, and altho' prejudiced that I ſhould diſcover nothing this way but a ſuperficial Knowledge, yet I was willing

to flatter myſelf that my Enquiry would not be wholly fruitleſs.

I cleanſed ſixteen Ounces of Kernels without burning them, I ground them in a Marble Mortar, and afterwards put them in a Glaſs Retort well luted; I placed it in a Reverberatory Furnace, and fixed to it a large Receiver; and after having luted the Joints well, I gave it the firſt Degree of Fire.

The firſt that aſcended was pure Phlegm, which dropt for about two Hours; a little white unctuous Matter ſwam on the top of it.

The Fire being augmented, the Drops became red, and congealed as they fell into the Receiver; this laſted about two Hours.

The Fire being again augmented, the Receiver was filled with white Clouds, which I ſaw reſolve into a kind of Dew, white and unctuous, which was partly Spirit, and partly a white Oil; the red Drops however continued to the End, which was about two Hours and a half.

This Operation let me know that Chocolate contains two kinds of Oil; the one Red and Fixed, which congealed it ſelf on the ſide of the Veſſel; and the other White and Volatile, which proceeded from the white Clouds, and reſolved itſelf on the other ſide of the Receiver.

On

On the Morrow after, having unluted the Receiver, and having placed it *in Balneo Mariæ*, to melt the congealed Matter, I was agreeably ſurpriz'd to ſee the Veſſel immediately fill'd with white Clouds: I very much admired the Volatility of this Unctuoſity, and I was fully convinced, that Chocolate contained that *volatile Oil* ſo highly eſteemed in Medicine, and that one need not go farther to ſeek the Cauſe of the ſpeedy Reparation of the fainting Spirits; which is confirmed by the daily Experience of thoſe that uſe Chocolate.

Having ſeparated the Spirit by filtring through brown Paper, I divided the butirous Matter into two Parts: I put one, without any Addition, into a little Glaſs Cucurbit, which I placed in a Sand-Heat to rectify it, and by this Operation I got an Oil of an Amber Colour, ſwimming upon a little Phlegm, or Spirit (3).

I melted the remaining Part, and having incorporated it with quick Lime, I put it into a little Glaſs Retort luted, and put Fire to it by degrees. There firſt came over a clear Oil, the white Clouds ſucceeded, and at length the reddiſh Butter. Having unluted the Recipient, and put all in a little Cucurbit in a Sand-Heat, the

(3) *Our Author ſeems to make Phlegm and Spirit ſynonymous Terms in Chymiſtry.*

white

white Clouds yielded an Oil of an Amber Colour; and having augmented the Fire, there came over a little red Oil, but no Spirit.

The Amber-coloured Oil is nothing elſe but the white volatile Oil, coloured a little by the Violence of the Fire: As for the red Oil, it ſeems to be the Remainder of the red Butter, fit to be exalted. Theſe two Oils will not mix together; for the red, more fixed than the other, always gets to the bottom. Mr. *Boyle* * ſaid he extracted from Human Blood, two Oils very like thoſe above mentioned; and this Conformity of Subſtances, very much convinces me of the great Analogy I always ſuppoſed to be between Chocolate and Human Blood.

As for the Spirit, it has nothing very diſagreeable either in Taſte or Smell, it does not ſenſibly ferment with Alkalies, nor alters the Colour of blue Paper; af-

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* Pluribus abhinc Annis cum Sanguinem conveniente admodum digeſtione, præparaſſem, & ſolicitè diſtillatos Liquores ſupereffluentes flammâ lampadis rectificaſſem: Inter alia duo obtinui olea diverſi omnino Coloris, quorum alterum Flavedinem, aut pallorem Succini, alterum vero intenſiſſimam Rubedinem imitabatur; illud autem ingenioſis etiam, lynceiſq; Spectatoribus, miraculi inſtar erat, quod licet ambo hæc Olea ab eodem ſanguine emanaſſent, forentq; pura ſatis & limpida, non tantum diſtinctis in Maſſis ſibi invicem ſupra innatarent, ſed ſi agitatione commiſcerentur, paulatim ſeſe mutuo iterum extricarent, ut Oleum & Aqua. *Hiſtoria Sanguinis Humani.*

ter

ter ſome time, it grows a little acid, and taſtes a little tartiſh.

Having calcined the *Caput Mortuum*, which is of a violet Colour, and filtred and evaporated the *Lixivium*, as is uſual; I got nothing from it but a kind of Cynder, a little ſaltiſh, and in ſo ſmall a quantity, that I did not give myſelf the trouble to reiterate the Calcination, Diſſolution, Filtration, and Evaporation; for I ſhould hardly have got five or ſix Grains of fixed purified Salt.

I curiouſly obſerved, that neither in the Heads, nor in the Receivers, there did appear any ſigns of a volatile Salt: However, *M. Lemery* aſſures us *, that it contains a good deal; but it is plain he took his Opinion upon truſt, for had he made the Experiment, he is too ingenious to be miſtaken.

One may then conclude from theſe two Obſervations, That Chocolate is a mix'd Body, that has the leaſt Quantity of Salt enters its Compoſition.

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* Traité de Drogues, *Pag.* 127.

SECT.

SECT. IV.

Chocolate is very proper to preserve Health, and to prolong the Life of Old Men.

BEFORE Chocolate was known in *Europe*, good old Wine was called the Milk of old Men; but this Title is now apply'd with greater reason to Chocolate, since its Use has become so common, that it has been perceived that Chocolate is, with respect to them, what Milk is to Infants. In reality, if one examines the Nature of Chocolate, a little with respect to the Constitution of aged Persons, it seems as though the one was made on purpose to remedy the Defects of the other, and that it is truly the *Panacea* of old Age.

Our Life, as a famous Physician † observes, is, as it were, a continual growing dry; but yet this kind of natural Consumption is imperceptible to an advanced Age: when the radical Moisture is consumed more sensibly, then the more balmy and volatile Parts of the Blood are dissipated by little and little, the Salts disengaging from the

† Baglivius in Edit. Lugd. 1709. *Pag.* 414. Vivere enim nostrum siccescere est.

Sul-

Sulphurs, manifeſt themſelves, the Acid appears, which is the fruitful Source of Chronick Diſeaſes. The Ligaments, the Tendons, and the Cartilages have ſcarce any of the Unctuoſity left, which render'd them ſo ſupple and ſo pliant in Youth. The Skin grows wrinkled as well within as without; in a word, all the ſolid Parts grow dry or bony.

One may ſay that Nature has formed Chocolate with every Vertue proper to remedy theſe Inconveniencies. The volatile Sulphur with which it abounds, is proper to ſupply the Place of that which the Blood loſes every day through Age, it blunts and ſheaths the Points of the Salts, and reſtores the uſual Softneſs to the Blood, like as Spirit of Wine united with Spirit of Salt, makes a ſoft Liquor of a violent Corroſive. This ſame ſulphurous Unctuoſity at the ſame time ſpreads itſelf in the ſolid Parts, and gives them, in ſome ſenſe, their natural Suppleneſs; it beſtows on the Membranes, the Tendons, the Ligaments, and the Cartilages, a kind of Oil which renders them ſmooth and flexible. Thus the *Equilibrium* between the Fluids and the Solids is in ſome meaſure re-eſtabliſh'd, the Wheels and Springs of our Machine mended, Health is preſerved, and Life prolonged. Theſe are not the Conſequences of Philoſophical Reflections, but of a thou-

ſand Experiments which mutually confirm each other; among a great Number of which, the following alone ſhall ſuffice.

There lately died at *Martinico* a Counſellor about a hundred Years old, who, for thirty Years paſt, lived on nothing but Chocolate and Biſcuit. He ſometimes indeed had a little Soop at Dinner, but never any Fiſh, Fleſh, or other Victuals: He was, nevertheleſs, ſo vigorous and nimble, that at fourſcore and five, he could get on horſeback without Stirrups.

Chocolate is not only proper to prolong the Life of aged People, but alſo of thoſe whoſe Conſtitution is lean and dry, or weak and cacochimical, or who uſe violent Exerciſes, or whoſe Employments oblige them to an intenſe Application of Mind, which makes them very faintiſh: to all theſe it agrees perfectly well, and becomes to them an altering Diet.

On the contrary, I would not counſel the daily Uſe of it to ſuch who are very fat, or who are wont to drink a good deal of Wine, and live upon a juicy Diet, or who ſleep much, and uſe no Exerciſe at all: In a word, who lead a delicate, ſedentary, and indolent Life, ſuch as a great many People of Condition at *Paris* are uſed to. Such Bodies as theſe, full

of

of Blood and Juice, have no need of additional Nouriſhment, and the Diet will fit them better which is mentioned in Eccleſiaſt. *Plentiful Feeding brings Diſeaſes, and Exceſs hath killed Numbers; but the temperate Man prolongs his Days* *.

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* *Chap.* xxxvii. *V.* 33 & 34. In multis Eſcis erit Infirmitas, propter crapulam multi obierunt: Qui autem abſtinens eſt, adjicit Vitam.

THE Natural HISTORY OF *CHOCOLATE.*

PART III.

Of the Uſes of Chocolate.

THE common Uſes of Chocolate may be reduced to three: It is put in Confections; it is uſed in Chocolate, properly ſo call'd; and there is an Oil drawn from it, to which they give the Name of Butter. I ſhall treat of them diſtinctly, in the three following Chapters.

CHAP.

CHAP. I.

Of Chocolate in Confections.

THEY chuſe *Cocao-Nuts* that are half ripe, and take out the Kernels one by one, for fear of ſpoiling them; they then lay them to ſoak for ſome Days in Spring-Water, which they take care to change Morning and Evening: afterwards, having taken them out and wiped them, they lard them with little Bits of Citron-Bark and Cinnamon, almoſt as they make the Nuts of *Roüen*.

In the mean time, they prepare a Syrup of the fineſt Sugar, but very clear; that is to ſay, wherein there is but little Sugar: and after it has been clarified and purified, they take it boiling-hot off the Fire, and put in the *Cocao-Kernels*, and let them lie 24 Hours. They repeat this Operation ſix or ſeven times, encreaſing every time the Quantity of Sugar, without putting it on the Fire, or doing any thing elſe to it: laſt of all, they boil another Syrup to the Conſiſtence of Sugar, and pour it on the Kernels well wiped and put in a clean earthen Pot; and when the Syrup is almoſt cold, they mix with

with it ſome Drops of the Eſſence of Amber.

When they would have theſe in a dry Form, they take them out of the Syrup; and after it is well drained from them, they put them into a Baſon full of a very ſtrong clarify'd Syrup, then they immediately put it in a Stove, or Hot-Houſe, where they candy it.

This Confection, which nearly reſembles the Nuts of *Roüen*, is excellent to ſtrengthen the Stomach without heating it too much; for this reaſon, they may ſafely be given to thoſe who are ill of a Fever.

CHAP. II.

Of Chocolate, properly ſo called.

IN treating of this Liquor, we have two things to examine: The Firſt is, the Original of Chocolate, and the different Manner of preparing it: The Second, the Medicinal Uſes that it is proper for; which ſhall be the Subject of the two following Sections.

SECT.

SECT. I.

Of the Original of Chocolate, and the different Manners of preparing it.

CHOCOLATE is originally an *American* Drink, which the *Spaniards* found very much in uſe at *Mexico*, when they conquer'd it, about the Year 1520.

The *Indians*, who have uſed this Drink time out of mind, prepared it without any great Art; they roaſted their Kernels in earthen Pots, then ground them between two Stones, diluted them with hot Water, and ſeaſon'd them with *Pimento* (1): thoſe who were more curious, added *Achiota* (2) to give it a Colour, and (3) *Attolla* to augment its Subſtance. All theſe things joined together, gave to the Compoſition ſo ſtrange a Look, and ſo odd a Taſte, that a *Spaniſh* Soldier ſaid, it was more fit to be thrown to Hogs (4), than preſented to Men; and that he could never have accuſtomed himſelf to it, if the want of Wine had not forced him to it, that he might not always be obliged to drink nothing but Water.

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(1) (2) (3) *See the Remarks* 8, 9, *and* 10.

(4) Porcorum ea verius Colluvies quam hominum Potio. *Benzo* apud *Cluſium* Exoticorum Lib. Cap. 28.

The

The *Spaniards* (5) taught by the *Mexicans*, and convinced by their own Experience, that this Drink, as ruſtick as it appeared to them, nevertheleſs yielded very wholeſome Nouriſhment; try'd to make it more agreeable by the Addition of Sugar, ſome Oriental Spices, and Things that grew there, which it will be needleſs to mention, becauſe the Names of them are not ſo much as known here, and becauſe of ſo many Ingredients, there is none continued down to us but *Vanilla*; in like manner, that Cinnamon (6) is the only Spice which has had general Approbation, and remains in the Compoſition of Chocolate.

Vanilla is a Cod of a brown Colour and delicate Smell; it is flatter and longer than our [*French*] Beans, it contains a luſcious Subſtance, full of little black ſhining Grains. They muſt be choſen freſh, full, and well grown, and care muſt be taken that they are not ſmeared with Balſam, nor put in a moiſt Place.

The agreeable Smell, and exquiſite Taſte that they communicate to Chocolate, have prodigiuſly recommended it; but long Experience having taught that it heats very much, its Uſe is become leſs

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(5) Hæc olim Cocolatis erant Exordia & Artis prima Rudimenta. *P. Thomæ Strozzæ* de Mentis potio.

(6) *See the* 11*th Remark.*

fre-

frequent, and thoſe who prefer their Health more than pleaſing their Senſes, abſtain from it entirely. In *Spain* and *Italy*, Chocolate prepared without *Vanilla*, is called at preſent *Chocolate of Health*; and in the *French* Iſlands of *America*, where *Vanilla* is neither ſcarce nor dear, as in *Europe*, they do not uſe it at all, though they conſume as much Chocolate there as in any other Place in the World.

However, a great many People are prejudiced in favour of *Vanilla*, and that I may pay a due Deference to their Judgments, I ſhall employ *Vanilla* in the Compoſition of *Chocolate*, in the beſt Method and Quantity, as it appears to me; I ſay, as it appears to me, becauſe there are an infinite Variety of Taſtes, and every one expects that we ſhould have regard to his, and one Perſon is for adding what the other rejects. Beſides, when it is agreed upon what things to put in, it is not poſſible to hit upon Proportions that will be univerſally approved; it will therefore be ſufficient for me to make choice of ſuch Things as the Majority are agreed upon, and conſequently which are agreeable to the Taſtes of moſt.

When the Chocolate Paſte is made pretty fine upon a Stone, as I have already explain'd, they add Sugar powdered and paſſed through a fine Searce; the true Proportion is the ſame Weight of Sugar as

of Kernels, but it is common to put a quarter part leſs of the former, that it may not dry the Paſte too much, nor make it too ſuſceptible of Impreſſions from the Air, and more ſubject to be eaten by Worms. But this fourth Part is again ſupply'd, when it is made into a Liquor to drink.

The Sugar being well mix'd with the Paſte, they add a very fine Powder made of *Vanilla* and *Cinnamon* powdred and ſearced together. They mix all over again upon the Stone very well, and then put it in Tin Moulds, of what Form you pleaſe, where it grows as hard as before. Thoſe that love Perfumes, pour a little Eſſence of Amber on it before they put it in the Moulds.

When the Chocolate is made without *Vanilla*, the Proportion of Cinnamon is two Drams to a Pound of Paſte; but when *Vanilla* is uſed, it ſhould be leſs by one half. As for the *Vanilla*, the Proportion is arbitrary; one, two, or three Cods, and ſometimes more, to a Pound, according to every one's Fancy.

Thoſe that make Chocolate for Sale, that they may be thought to have put in a good deal of *Vanilla*, put in Pepper, Ginger, *&c.* There are even ſome People ſo accuſtomed to theſe Taſtes, that they will not have it otherwiſe; but theſe Spices ſerving only to inflame the Blood,

and

and heat the Body, prudent People take care to avoid this Exceſs, and will not uſe any Chocolate whoſe Compoſition they are ignorant of.

Chocolate made after this manner, has this Advantage, that when a Perſon is obliged to go from Home, and cannot ſtay to have it made into Drink, he may eat an Ounce of it, and drinking after it, leave the Stomach to diſſolve it.

In the *Antilloes* they make Cakes of the Kernels only, without any Addition, as I have taught at the End of the firſt Part of this Treatiſe; and when they would make Chocolate of them, they proceed in the following Manner.

The Method of making Chocolate after the Manner of the French *Iſlands in* America.

THEY ſcrape off with a Knife from theſe Cakes aforeſaid (1), what Quantity they pleaſe, (for Inſtance, four large Spoonfuls, which weigh about an Ounce) and mix with it two or three Pinches of powder'd Cinnamon finely ſearced, and about two large Spoonfuls of Sugar in Powder (2).

(1) *Or rather grate it with a flat Grater, when the Cakes are ſo dry that they will not be ſo eaſily ſcraped with a Knife.*

(2) *Becauſe if it was in a Lump, it would weigh more than double the Quantity of ſcraped Chocolate.*

They put this Mixture into a Chocolate-Pot with a new-laid Egg (3), both White and Yolk; then mix all well together with the Mill, and bring it to the Conſiſtence of Liquid Honey, upon which they afterwards pour boiling Liquor (4), (Milk or Water, as is liked beſt) at the ſame time uſing the Mill that they may be well incorporated together.

Afterwards they put the Chocolate-Pot on the Fire, or in a Kettle of boiling Water; and when the Chocolate riſes, they take it off, and having well mill'd it, they pour it into the Diſhes. To make the Taſte more exquiſite, one may, before it is poured out, add a Spoonful of Orange-Flower Water, wherein a Drop or two of Eſſence of Amber has been put.

This Manner of making Chocolate has ſeveral Advantages above any other, and which render it preferable to them all.

In the firſt place, one may aſſert, that being well managed, it has a very agreeable Smell, and a peculiar Delicacy in the Taſte; beſides, it paſſes very eaſily off the Stomach, nor leaves any Settling either in the Chocolate-Pot, or in the Diſhes.

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(3) *The oily Parts of the Chocolate would not readily unite with the aqueous or watry Parts of the Liquor, without the Intervention of the Egg, which ſerves as a common Bond, without which this Drink would not have a good Head.*

(4) *The Proportion of Liquor ſhould be about eight Ounces, or half a Pint, to one Ounce of Chocolate.*

In

In the ſecond place, one has the Satisfaction to prepare it one's ſelf to one's own Taſte, to encreaſe or diminiſh at pleaſure the Quantities of Sugar or Cinnamon, and to add or leave out the Orange-Flower Water, or Eſſence of Amber; and, in a word, to make any other Alteration that ſhall be moſt agreeable.

In the third place, they make no Additions that deſtroy the good Qualities of the Kernels; it is ſo temperate, that it may be taken at all Times, and by all Ages, in Summer as well as in Winter, without fearing the leaſt Inconveniency: Whereas *Chocolate* ſeaſon'd with *Vanilla*, and other hot and biting Ingredients, cannot but be very pernicious, eſpecially in Summer, to young People, and to dry Conſtitutions. The Glaſs of cold Water that they have introduced to drink before it, or after it, only ſerves to palliate the Effects for a Time; for the Heat that attends it, will manifeſt itſelf in the Blood and *Viſcera*, when the Water is drain'd off and gone, by the ordinary ways.

In the fourth place, a Diſh is ſo cheap, as not to come to above a Penny. If Tradeſmen and Artizans were once aware of it, there are few who would not take the Advantage of ſo eaſy a Method of Breakfaſting ſo agreeably, at ſo ſmall a Charge, and to be well ſupported till Din-

Dinner-time, without taking any other Suſtenance, Solid or Liquid.

SECT. II.

Of the Uſes that may be made of Chocolate with relation to Medicine.

I Have always imagined it would be a very great Advantage to Phyſick, if Medicines could be adminiſtred to ſick People under an agreeable Form, and a familiar Taſte; and the Artifice itſelf of giving any thing under the appearance and name of ſomething that is delicate, is not without its Benefit: People afflicted with Diſtempers, have enough to do to ſupport their Pains, without the Inconveniency of diſtaſtful Remedies; however, it would be no ſmall matter to ſpare them the Averſion they have to every thing that is called a Medicine; and when there is a Neceſſity for ſuch, Chocolate may ſerve for very proper Diet, and an excellent Vehicle, wherein to take a Medicine at the ſame time.

Theſe have been my Thoughts for ſome Time, and I can affirm that a happy Succeſs has often confirm'd my Opinion. I could wiſh that this Eſſay, imperfect as it is, might ſerve to waken the Attention of ſome ingenious Phyſician, who would give himſelf the trouble to handle this

Matter

Matter with greater Accuracy than my ſmall Penetration will permit me to do.

1. How many People neglect to purge themſelves, and are ſo obſtinate as to refuſe to do it, when they have the greateſt need of it, and this becauſe of the great Diſtaſte they have for ordinary Medicines? Will it not be of the greateſt Service to teach them to purge themſelves after a delightful Method, and even, if it was neceſſary, to purge them without their knowledge? To do this, you need only mix 20 or 26 Grains of *Jalap* in Powder, (more or leſs, according to the Age and Strength of the Perſon) with ſo much Powder of Cinnamon as is common for a Diſh of Chocolate, and to give this Diſh as if it were ordinary Chocolate. I have had great Experience of this, it is a good Purge without Griping; ſeveral have miſtaken the Effect for the Benefit of Nature only, being entirely ignorant of the officious Deceit which I made uſe of for their ſakes. What Advantages may not there be drawn from this Method of Purging apply'd to Children, who are ſo backward to take any thing that has the leaſt ill Taſte?

2. The Preparations of the *Cortex*, both Galenical and Chymical, have not ſucceeded. Its Infuſion in Wine, heretofore ſo much cry'd up, contains but a part of the Vertue; for the *Fæces*, or the Bark

that

that remains at the bottom of the Bottle, has Strength enough to cure the intermitting Fever. Thus after a thouſand fruitleſs Trials, it is now given again in Subſtance, reduced to a very fine Powder, which is either made into *Bolus's*, or taken in Water. This Practice however is attended with ſeveral Inconveniences; for a great many People, eſpecially Children, cannot ſwallow it in *Bolus's*. The ſame Inconveniences follow the other Way of taking it in Water, and is neither leſs troubleſome, nor leſs nauſeous.

To avoid all this, a Dram of the *Cortex* reduced to a fine (1) Powder, and finely ſearced, and afterwards ground dry on a Porphyry, with the Cinnamon deſigned for a Diſh of Chocolate, and mixed in the Chocolate with more Sugar than ordinary, may be taken without the leaſt Reluctancy, and, if neceſſary, without being perceived: The Perſon will be nouriſhed at the ſame time much better than with Broth, which is eaſily corrupted by a feveriſh Stomach; neither will the Particles of the *Cortex* offend the Stomach, being wrapped up by the Unctuoſity of the Chocolate. I have cured Intermittent Fe-

(1) *This, if true, overturns what has been ſaid about the Mechanical Cure of an Ague, by* Quincy, *who pretends that the Vertue of the Cortex lies in its Texture, which this Preparation deſtroys.*

vers

vers after this manner, nor did it ever fail of good Succeſs.

3. The moſt elaborate Preparations of Steel, are not one jot the better upon that account; the ſimple Filings have more Vertue than was ever extorted from this Metal by any Preparation: there is nevertheleſs an Inconveniency in the Uſe of them, becauſe all the Particles of the Steel uniting together, by their Weight, at the bottom of the Stomach, form a kind of a Cake, which fatigues it, and makes it very uneaſy.

To remedy this, after the Filings have been ground into a very fine Powder upon a Porphyry; you muſt mix it with the Cinnamon, when you make your Chocolate, and it is certain that the Particles of the Steel will be ſo divided and ſeparated by the Agitation of the Mill, and ſo entangled in the Chocolate, that there will be no danger of a future Separation. Beſides, the aromatick Particles of the Cinnamon, and the alkaline ones of the Chocolate, will not a little add to the Strength and Operation of this Remedy.

4. After this manner may you mix with the Chocolate the Powders of *Millepedes*, *Vipers*, *Earthworms*, the Livers and Galls of Eels, to take away the diſtaſteful Ideas that the Sick entertain againſt theſe Remedies.

5. The Uſe of Milk is a ſpecifick Remedy for the Cure of ſeveral Diſtempers, but by Misfortune there are but few Stomachs that can bear it, and ſeveral Methods have been try'd to find out Help for this Inconvenience. Without troubling myſelf to mention or examine them, will it not be an eaſy and natural Method, to hinder the Milk from curdling on the Stomach, to pour a hot Diſh of Chocolate upon a Pint or Quart of Milk? The butirous Parts of the Milk and Chocolate, are in reality analogous to each other, and very proper to be united for the ſame Purpoſe; and what is bitter and alkaline in the Chocolate, ought neceſſarily to hinder the curdling of the Milk in the Stomach. It is eaſy to confirm by Experience the Reaſoning upon this ſort of Chocolated Milk.

CHAP. III.

Of the Oil or Butter of Chocolate.

CHOCOLATE Kernels are a Fruit very oleaginous, but the Oil is very cloſely united with the other Principles, that it requires a great deal of Labour to ſeparate

ſeparate it, and to make it pure. The three common Ways to extract Oils, are by Diſtillation, Expreſſion, and Decoction; we reject the firſt as being very imperfect, becauſe the Violence of the Fire alters the Nature of all Oils that are extracted that way. The Succeſs will anſwer no better by Expreſſion, becauſe that which is got will be very impure and in very ſmall Quantity. There then remains no way but by Decoction, to draw out this eſſential Oil that we are in queſt of, which is the true and the only way, for it gives it in its utmoſt Purity without any Alteration.

They take Chocolate that is roaſted, cleaned, and ground upon the Stone, they throw the Paſte into a Pan of boiling Water over a clear Fire; they let it boil till almoſt all the Water is conſumed, then they pour more Water upon it till the Pan is full; the Oil aſcends to the Top in proportion as the Water cools, and grows to the Conſiſtence of Butter. If this Oil is not very white, it needs only be melted in a Pan full of hot Water, where it will be diſengaged and purified from the red and terreſtrial Particles that remain.

At *Martinico* this Oil is of the Conſiſtence of Butter, but brought into *France*, it becomes almoſt as hard as *Fromage*, or

French Cheeſe, which melts nevertheleſs, and becomes liquid with a moderate Heat: it has no very ſenſible Smell, and has the good fortune never to grow rank; I have ſome of it now by me, that has been made this fifteen Years. One Year, when Oil of Olives failed us, we uſed that of Chocolate during the Time of *Lent*. It is very well taſted, and very far from being hurtful; it contains the moſt eſſential and moſt healthful Parts of the Chocolate.

I had the Curioſity to examine it by a Chymical Analyſis; I put three Ounces into a little Glaſs Cucurbit placed in the Heat of Aſhes, there drop'd from it an oily Liquor, which congealed as it fell down, and which did not differ from the Butter that I have deſcribed, but by a light Impreſſion made upon it by the Fire. I only obſerved, that there was at the bottom of the Receiver, two or three Drops of a clear Liquor, which taſted a little acid, but very agreeable.

As this Oil is very anodyne, or an Eaſer of Pain, it is excellent, taken inwardly, to cure Hoarſeneſs, and to blunt the Sharpneſs of the Salts that irritate the Lungs. In uſing, it muſt be melted and mix'd with a ſufficient Quantity of Sugar-Candy, and made into Lozenges, which muſt be held in the Mouth as long

long as may be, before they melt quite away, ſwallowing it down gently.

Oil of Chocolate alſo taken ſeaſonably, may be a wonderful Antidote againſt corroſive Poiſons.

Its Vertues are no ways inferior, if uſed outwardly.

1. It is the beſt and moſt natural *Pomatum* for Ladies to *clear* and *plump* the Skin when it is *dry*, *rough*, or *ſhrivel'd*, without making it appear either *fat* or *ſhining*. The *Spaniſh Women* at *Mexico*, uſe it very much, and it is highly eſteem'd by them. If it is thought too hard, it may be ſoftened with Oil of Ben, or Oil of Sweet Almonds, cold drawn.

2. I am perſuaded if the antient Cuſtom of the *Greeks* and *Romans*, of anointing their Bodies with Oil, was revived, there is nothing would anſwer their Expectations better, in augmenting the Strength and Suppleneſs of their Muſcles, and preſerving them from Rheumatiſms and other torturing Pains. The leaving off this Practice, can be attributed to nothing elſe but to the ill Smell and other Properties that attended it; but if Oil of Chocolate was uſed inſtead of Oil of Olives, thoſe Inconveniences would be avoided, becauſe it has no Smell, and dries entirely into the Skin: nothing certainly would be more advantageous,

tageous, eſpecially for aged Perſons, than to renew this Cuſtom, which has been authorized by the Experience of Antiquity.

3. Apothecaries ought to make uſe of this preferably to all others, as the Baſis of their Apoplectick Balſams; becauſe all other Oils grow rancid, and the Oil of Nutmegs, though whiten'd with Spirit of Wine, always retains ſomewhat of its natural Smell, whereas Oil of Chocolate is not ſubject to any of theſe Accidents.

4. There is nothing ſo proper as this to keep Arms from ruſting, becauſe it contains leſs Water than any other Oil made uſe of for that purpoſe.

5. In the *American* Iſlands they make uſe of this Oil to cure the Piles; ſome uſe it without Mixture, others melt two or three Pounds of Lead, and gathering the Droſs, reduce it into fine Powder, and after it is finely ſearced, incorporate it with this Oil, and make a Liniment of it very efficacious for this Diſeaſe. Others for the ſame Intention mix with this Oil the Powder of *Millepedes*, Sugar of Lead, *Pompholix*, and a little *Laudanum*.

Others uſe this Oil to eaſe Gout Pains, applying it hot to the Part, with a Compreſs dip'd in it, which they cover with a hot Napkin. It may be uſed after the ſame manner for the Rheumatiſm.

6. *Laſtly*,

6. *Laſtly*, This Oil enters the Compoſition of the wonderful Plaiſter, and the *Pomatum* againſt Tetters. You will find their Deſcription and Properties among the Remarks at the End of this Treatiſe.

REMARKS

REMARKS

Upon ſome PLACES of the

TREATISE upon *Chocolate.*

REMARK I.

THE *Coco-Tree* is the ſame as the Palm-Tree ſo famous in the *Eaſt-Indies*; its Fruit is call'd *Coco*, and care ſhould be taken that it be not confounded with *Cocao*. I make this Remark, becauſe I find that *William Dampier* very improperly calls (a) *Coco's Cocao-Nuts*, and the Tree that bears them a *Cocao*.

(a) *New Voyage round the World*, Tom. 1. Chap. 10.

RE-

REMARK II.

THEY have tranſported theſe great Trees from *St. Domingo* to the *Vent Iſlands*; their Leaves being almoſt round, are firm and ſo ſmooth, that one would think they had been varniſhed. Their Fruit are ſometimes as large as one's Head, and their Skins very thick: When that is taken off, the Pulp is very near the Colour, Smell, and Taſte of our Apricocks; in the Middle there are four Stones as big as Pullets Eggs, which are difficult to ſeparate from the Fruit. They are eaten with Wine and Sugar; they make alſo very good Marmalade.

REMARK III.

THE *Calebaſh*-Tree is nigh as large as the Apple-Tree; it ſupplies the Natives and Negroes with Buckets, Pots, Bottles, Diſhes, Plates, and ſeveral other Houſhold Utenſils. One cannot deſcribe the Shape nor Bigneſs of *Calebaſhes*, ſince there are ſome of the Size of a Pear, and others as large as the greateſt Citrons; and beſides, there are long, round, oval, and of all Faſhions. The Fruit, which

is green and ſmooth upon the Tree, becomes grey as it dries; within, it is full of a white Pulp, of no uſe at all, which they take out through a Hole; the Shells they put to ſeveral Services. The Bark is about one Fifth of an Inch thick, but very hard, and difficult to break.

REMARK IV.

THE *Papaw*-Tree is pretty uncommon as to its Make; its Trunk is ſtrait, but hollow, and of ſo tender a Wood, that it is eaſily cut down with a Hedging-Bill; it is about four Yards high, without any Branches; its Leaves much like thoſe of our Fig-Trees, but twice as big, and are joined to the top by Stalks of a Foot and a half long, and hollow like a Reed. They being about thirty in number, grow at the top of the Trunk all round about it; the loweſt are ripeſt and largeſt, they are green, and of the bigneſs of one's Fiſt. The Pulp, which is but half an Inch thick, is like that of a Melon, but of a ſweet faintiſh Taſte; but it makes a pretty good Confection, of a fine green Colour.

There is another kind of *Papaw*-Tree, whoſe Fruit is as large as a Melon, and better taſted than the former.

REMARK V.

THE *Banane* is a ſort of Plant, whoſe Root is a great round Bulb, from whence proceeds a Trunk, green and ſmooth, ſix Feet high, as thick as one's Thigh, and without any Leaf. On the top of it grow about twenty Leaves, about a Foot and a half broad, and about five Feet long; but ſo tender, that the Wind tears them from the Middle to the Sides, into Slangs like Ribbons: From the Center of theſe Leaves grows a ſecond Trunk, more firm than the reſt of the Plant: upon this grows a Cluſter of about forty or fifty *Bananes*, ſometimes more, ſometimes leſs. A *Banane* is a Fruit as thick as one's Arm, about a Foot long, and a little crooked. They gather this Cluſter green, and hang it up in the Ceiling; and as the *Bananes* grow yellow, or mellow, they gather them. When this Cluſter is taken away, the Plant withers, or they cut it down at the Root; but for one Trunk loſt, the Root ſends forth five or ſix more.

Beſides theſe *Bananes*, there is a Fruit call'd *Banane-Figs*; but the Plants that produce them are very little different: The Figs are much leſs than the *Bananes*,

being but four or five Inches long. The Fig is more delicious, but the *Banane* is thought to be more wholesome, and the Pulp more solid. They roast them upon a Grid-Iron, or bake them in an Oven, they eat them with Sugar and the Juice of an Orange. The *Banane* done in a Stew-Pan in its own Juice, with Sugar and a little Cinnamon, is excellent.

REMARK VI.

MANIOC is a Shrub very crooked, and full of Knots, its Wood is tender and brittle, and the Branches are easily broke off into Slips: There are several, and different Colours, some more forward and fruitful than others. Commonly they are pluck'd up in a Year or thereabouts; and there is found at every one, several plump Roots, without any sensible Fibres, more or less thick, according to the Kind and the Goodness of the Soil. These Roots are wash'd in a good deal of Water, to free them from the Earth; and after they are scraped with a Knife like wild Turnips, they *grate* them; that is to say, they rub them hard upon great Copper Graters, which the *French* call *Grages*, just as they do Quinces to get out the Juice. This grated

Manioc

Manioc is put in the Preſs in Sacks made of coarſe Hemp, or Ruſhes, to get out the ſuperfluous Moiſture, which is not only unwholeſome, but poiſonous. This, thus preſs'd, they take from the Sacks, and paſs it through a coarſe Sieve called *Hibichet*; they afterwards bake it two ſeveral ways, to make what they call *Caſſave*, or Meal of *Manioc*.

In the firſt place, when they would make the *Caſſave*, they ſpread the ſifted *Manioc* upon a Plate of Iron over a clear Fire, which they tapping down with the Ball of their Hands, make a broad Cake about half an Inch thick, and two Feet in diameter; and when it is baked on one ſide, they turn it on the other: and if they would keep it any time, they dry it in the Sun.

In the ſecond place, when they would make what they call the Meal, they put the *Manioc*, grated, preſſed, and ſifted, as before, upon a great Copper Plate four Feet in diameter, with a Brim five or ſix Inches high, and placed upon a Brick Furnace: They ſtir it continually with a wooden *Spatula*, that it may not ſtick and be baked all alike. This Meal reſembles Bread groſly crumbled, and may be kept a long while in a dry Place. The Natives do not trouble themſelves to make the Meal; they only eat *Caſſave*, which

which they bake every day, becauſe, when it is hot, it is more agreeable and palatable.

If they leave the expreſſed Juice of *Manioc* to ſettle, it lets fall a *Fæcula* to the bottom, called *Mouſſache*, which they afterwards dry in the Sun: it is as white as Snow, of which they make very good Cakes, called in thoſe Parts, *Craquelins*.

The Laundreſſes uſe this *Fæcula* inſtead of Starch, to ſtarch their Linnen. Some Inhabitants mix one Third of this with two Thirds of *French* Meal, and make Bread that is very white, and well taſted.

REMARK VII.

AT firſt ſight, one would take a *Balize*-Tree for a *Banane*, they are ſo like each other: there is, however, this difference between them, That the Leaves of the *Balize*-Tree are not ſo tender, and apt to be tore; for this reaſon, they ſerve the Natives for Table-Cloths and Napkins, as well as the Negroes, and ſome of the Planters that live in the Woods. Sometimes they ſerve as Umbrella's to ſhade them from the Sun, or Showers of Rain, that ſurprize them.

The

The Hunters have great aſſiſtance from this Plant; for ſometimes finding themſelves preſſed with Thirſt, in Places at ſome diſtance from Rivers or Fountains, they give the Trunk of a *Balize* a Slaſh with a Knife, and immediately hold their Hat, or a Cup, which catches a clear, good, and cool Water, even in the greateſt Heat.

REMARK VIII.

PIMENTO, called alſo *Jamaica-Pepper*, has been brought into *France*, where it grows, as in *America*, in pyramidal Cods of three or four Inches long: they are at firſt green, then yellow, afterwards red, and laſt of all, black. They pickle them in Vinegar, as they do Capers and little Cucumbers. There are in *America* ſeveral other Kinds of *Pimentoes*, and eſpecially one that is round, and as red as a Cherry. This is the hotteſt of all, it ſets the Mouth all on fire; for which reaſon it is called the mad *Pimento*. The Natives eat nothing without *Pimento*, it is their univerſal Seaſoning, it ſerves them inſtead of Salt, and all Oriental Spices.

REMARK IX.

ACHOTE is beſt known in *France*, under the Name of *Roucou*, and is a ſort of Red which the Dyers and Painters make uſe of. It is the favourite Colour of the Savages, which they are very careful of planting in their Gardens, that they may paint their Bodies every Morning, which they call *Roucouing*.

Roucou is planted of a Kernel much after the ſame manner as the *Cocao-Tree*. The Shrub that is moſt like it in *Europe*, is the *Lilach*, or the *Arabian* Bean. Its Leaves, of the Shape of a Heart, are longiſh, pointed, and placed alternately; its Bloſſoms grow in Bunches at the end of the Boughs, they are white, mix'd with Carnation, like the Flowers of the wild Roſe-Tree. In the middle, there is a Tuft of yellow *Stamina* with red Points; when theſe Bloſſoms fall off, there appears tawny Buds, beſet with fine Prickles: Theſe Buds grow to be Shells, which, when ripe, open on the upper ſide, and diſcover within, two Rows of Pippins, almoſt like little Peas, cover'd with Vermilion, which ſticks to the Fingers, when touch'd, and leaves the Pippins quite, when waſh'd with warm Water. The Water being

being ſettled, they pour it off gently by degrees, they dry the Colour in the Shade that fell to the bottom of the Veſſel; and this is the true *Roucou*, without any Mixture. The Phyſicians in theſe Parts preſcribe it to cut and attenuate thick and tough Humours, which cauſe difficulty of Breathing, Retenſion of Urine, and all ſorts of Obſtructions *.

REMARK X.

ATOLLA is a kind of Gruel which they make with Meal of *Maiſe*, (which is the ſame as our *Indian* Corn, or *Turkey* Millet.) The *Mexicans* ſeaſon it with *Pimento*; but the Nuns and *Spaniſh* Ladies, inſtead of *Pimento*, uſe Sugar, Cinnamon, perfumed Waters of Amber, Musk, *&c.* In theſe Parts, they make the ſame Uſe of *Atolla*, as of the beſt Rice in the *Levant*.

REMARK XI.

ONE ought to chuſe the ſmalleſt Cinnamon, the higheſt coloured, and of the moſt biting Taſte, as well as ſweet and ſpicy, becauſe a great Part is

* Thomas Gage, *Tom.* 1. *Part* 2. *Pag.* 142.

full of Pieces, from whence they have drawn the Eſſence, and has neither any Colour nor Taſte, but that of the Wood. To help and amend both, there needs only a Clove to be ground in the Mortar, with an Ounce of Cinnamon. This Spice is beſt that comes from the *Eaſt-Indies*, it has nothing of Acrid in it, and contains an oleous Volatile, which agrees very well with that of Chocolate. Cinnamon alſo has always kept its Place in all the Compoſitions of Chocolate.

ME-

MEDICINES

In whose Compoſition

OIL or BUTTER

OF

CHOCOLATE

Is made uſe of.

The Wonderful Plaiſter for the Curing of all ſorts of Ulcers.

TAKE *Oil-Olive* a Pound, *Venetian Ceruſs*, in Powder, half a Pound.

Put them in a Copper Pan, or a glazed Earthen one, upon a clear moderate Fire, ſtirring them continually with a

wooden *Spatula* till the Mixture is become black, and almoſt of the Conſiſtence of a Plaiſter, (which you may know by letting fall two or three Drops upon a Pewter Plate; for if they grow cold immediately, and do not ſtick to the Fingers, when touch'd, it is done enough.) Then muſt be added,

Of Bees-Wax cut in little Bits, an Ounce and a half.
Oil or Butter of Chocolate, an Ounce.
Balſam Capivi, an Ounce and a half.

When they are all melted and mixed together, the Pan muſt be taken off the Fire; and ſtirring conſtantly with the *Spatula*, you muſt add the following Ingredients, reduced into a fine Powder ſeparately, and then well mixed together.

Lapis Calaminaris, heated in the Fire, and then quenched in Lime-Water, and ground upon a Porphyry, one Ounce.
Myrrh in Drops, } of each two
Aloes Succotrine, } of each two
Round Birthwort, } of each two
Florentine Orris, } of each two Drams.
Camphire, a Dram.

When

When they are all well incorporated together, they muſt cool a little, and then be poured upon a Marble to be made into Rolls, after the ordinary Manner.

I have ſeen ſuch ſurprizing Effects from this Emplaiſter, that I am almoſt backward to mention them, leſt they ſhould ſeem incredible. It cures the moſt ſtubborn and inveterate Ulcers, provided the Bone is not carious: for in this Caſe, leſt you ſhould loſe your Labour, you muſt begin with the Bone, and then apply the Plaiſter. The Place muſt be dreſs'd Morning and Evening after it is clean'd with Lime Water, and wiped well with a Linnen Cloth.

The ſame Plaiſter may ſerve ſeveral Times, provided it be waſhed with Lime Water, wiped with a Rag, and held to the Fire a Moment before it is apply'd.

I exhort charitable People to make this Plaiſter and give it to the Poor, eſpecially thoſe that live in the Country; they will draw down a Thouſand Bleſſings in this Life, and the Lord will recompence them hereafter.

An excellent Pomatum for Ring-worms, Tettars, Pimples, and other Deformities of the Skin.

TAKE *Flowers* of *Brimstone* (a), *Salt Petre* purified, of each Half an Ounce; good *White Precipitate* (b), two Drams; *Benzoin* or *Benjamin*, a Dram.

Beat the *Benjamin* and *Salt-Petre* a good while in a Brass Mortar, till they are reduced into a very fine Powder, then mix the Flower of Brimstone and White Precipitate with them, and keep this Powder for Use.

At *Martinico* when I had occasion to make use of it, I incorporated it with Butter of Chocolate; but in *France*, I substitute the best-scented *Jessamin Pomatum*: This Smell, joined with that of Benjamin, corrects the Smell of the Brimstone, which some Persons abhor.

I cannot sufficiently recommend this *Pomatum*, which always succeeds well, and I have often found it beneficial when every thing else fail'd.

(a) *To wit, those that are made in* Holland, *if they can be got.*

(b) *To know if the* Precipitate *be good, you may do thus; Put a little upon a live Coal, if it flies away, it is good; if it stays behind, it is nothing but powder'd Ceruss, or some such thing.*

You

You muſt not wonder if on the firſt, and ſometimes the ſecond Day, the Tettar ſeems more lively, or the Complection more dull; it is a ſign that the Malignity is drawn out, and that the Seeds of it are deſtroy'd: you muſt therefore take heed of deſiſting, for the Skin in a little Time will be render'd as even and ſmooth as you can deſire.

F I N I S.

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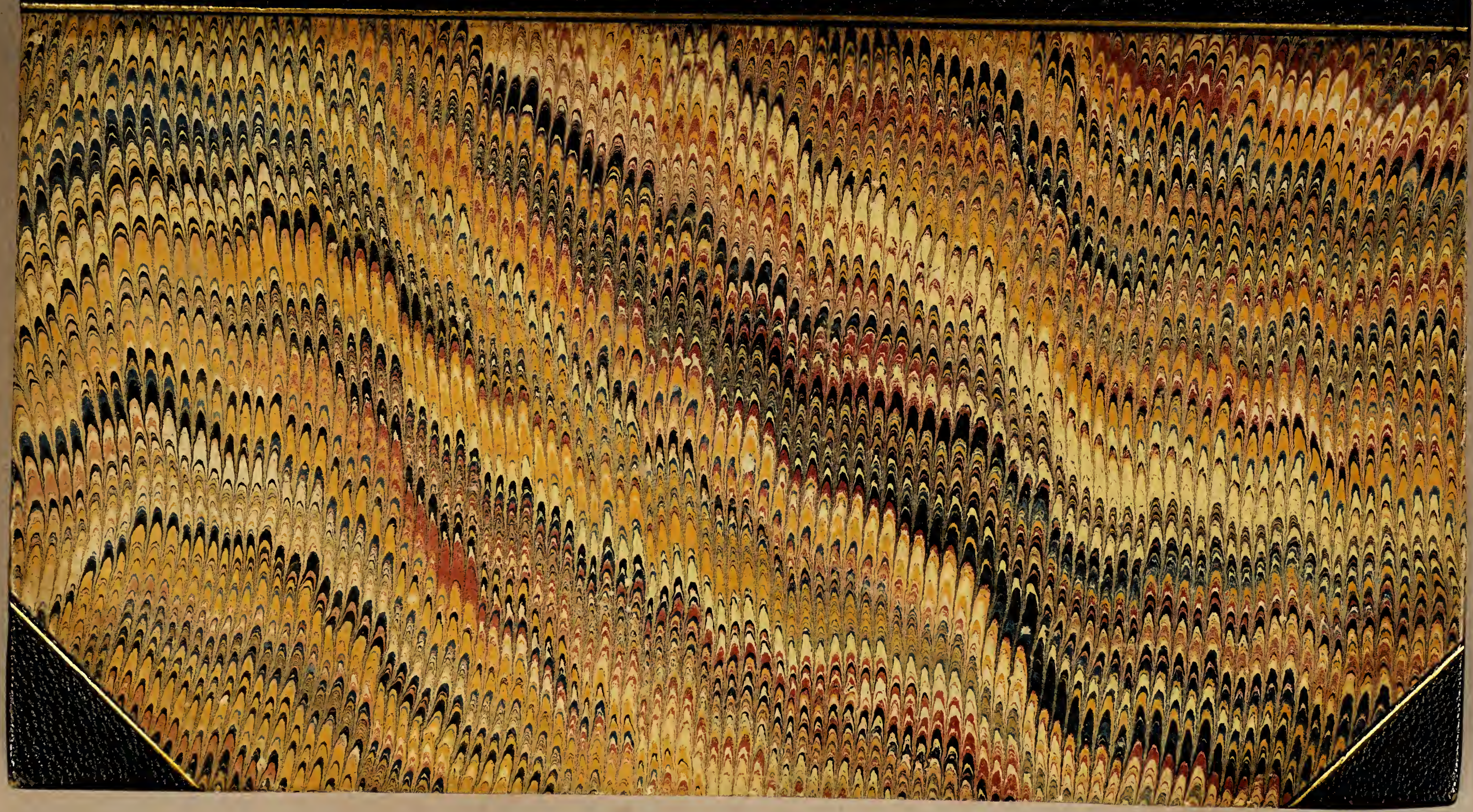
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